ELEVATOR
COMPONENTS

henning
MADE IN GERMANY

ELEVATOR DESIGN . INNOVATION AND SAFETY .

DESIGN + TECHNOLOGY

WE ARE HENNING.

Member of:

WELCOME

The philosophy of Henning GmbH & Co. KG is marked by the flexibility, dynamism and reliability of a medium-sized family-owned business; our strong points are meeting individual customer needs and comprehensive guidance.

As an ISO 9001 certified manufacturer Henning produces equipment on state-of-the-art machinery and production lines. Made in Germany means to us being committed to high quality products with good reliability. For over 30 years Henning GmbH & Co. KG designs and manufactures elevator components in Schwelm and Braunschweig/ Vechelde. Our Team posseses yearlong experience in elevator business and can assist you even with the most demanding inquiries. Try our products and contact us if you have any further questions. We would like to convince you of the quality of our products and services.

Your HENNING competence - team

WE ARE CONCERNED ABOUT YOU! SERVICE FROM HENNING.

CUSTOMER-SPECIFIC DESIGN

Henning has been your competent partner for high-quality, reliable and precise lift components for over 30 years.

We are constantly expanding our development, design and manufacturing know-how to be able to supply you with products which meet the highest technical demands.

We have repeatedly conducted special developments for individual customers with great success.

That is why we would like to introduce this individual service. Benefit from our know-how in development, design and manufacture of load measuring systems, accelerometers and LED technology.

Talk to us and challenge us.
We will find a solution!

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1

weight watcher
AE 12
0000
AL-E
AL-F
AL-O
AL-S
henning
Made in Germany
Software : www.Henning-GmbH.de/download
AE16
AE8
Alarm
weight watcher light

OVERLOAD MEASUREMENT TECHNOLOGY

1.0
OVER-LOAD CONTROL SYSTEM
Comparison of WeightWatcher, WeightWatcher light, WeightWatcher light MultiF

ANALOG

CANopen

	Weight Watcher						
Evaluation Unit	AE12		AE12 Analog		AE12 CANopen		
Max. Number Of Sensors	12		12		12		
Voltage	12 - 28 VDC		12 - 28 VDC		12 - 28 VDC		
Power Consumption	4 W		4 W		4 W		
Output Relays	4 NO/NC (zero load, full load, overload, slack rope)		4 NO/NC (zero load, full load overload, slack rope)		●		
Analogue Output	●		●		●		
Hold Input	12 - 230 VAC/DC		12 - 230 VAC/DC		12 - 230 VAC/DC		
CANopen DSP 417	●		●		●		
Display	LED, 4 digits		LED, 4 digits		LED, 4 digits		
Operation	3 keys		3 keys		3 keys		
Determination Of Car Weight	●		●		●		
Rope Tension Assistant	● (via Laptop)		● (via Laptop)		● (via Laptop)		
Configuration by laptop	● (USB-Cable)		● (USB-Cable)		● (USB-Cable)		
Dimensions (L x W x H)	105 x 90 x 62 mm		105 x 90 x 62 mm		105 x 90 x 62 mm		
Art.-No.	455000		455002		455005		
Rope Load Sensors	LS 1	LS2	LS 2000	RC 300	RC 500	RC 1000	RC 3500
Art.-No.	455500	455400	455850	455250	455255	455260	455265
Max. Eye Bolt Diameter Ø mm Max. Eye Bolt Diameter Ø inch				12,2 (M12) $^{15}/_{32}$ inch	16,2 (M16) $^{5}/_{8}$ inch	24,0 (M24) $^{15}/_{16}$ inch	30,8 (M30) 1 $^{7}/_{32}$ inch
Rope Diameter Ø mm Rope Diameter Ø inch	6 - 16 mm $^{1}/_{4}$-$^{5}/_{8}$ inch	4 - 10 mm $^{5}/_{32}$-$^{3}/_{8}$ inch	6 - 16 mm $^{1}/_{4}$-$^{5}/_{8}$ inch	~ 4-8 mm ~ $^{5}/_{32}$-$^{5}/_{16}$ inch	~ 6-14 mm ~ $^{1}/_{4}$-$^{9}/_{16}$ inch	~ 12-17 mm ~ $^{15}/_{32}$-$^{11}/_{16}$ inch	~ 16-25 mm ~ $^{15}/_{32}$-$^{11}/_{16}$ inch
Application Range kg Application Range lbs	0 - 500 kg 0 - 1100 lbs	0 - 300 kg 0 - 660 lbs	200 - 2000 kg 400 - 4500 lbs	0-300 kg 0 - 660 lbs	0 - 500 kg 0 - 1100 lbs	0 - 1000 kg 0 - 2200 lbs	0 - 3500 kg 0 - 7700 lbs
Measuring Principle	Strain Gauge	Strain Gauge	Strain Gauge	Strain Gauge			
Calibrated Sensors	●	●	pre calibrated rope Ø /weight	●	●	●	●
calibration with weights	●	●	●	●	●	●	●
Temperature Range	0° - 70°C	0° - 70°C	0° - 70°C	0° - 70°C	0° - 70°C	0° - 70°C	0° - 70°C
Length Of Cable	2,5 m	2,5 m	2,5 m	2,5 m	2,5 m	2,5 m	2,5 m
Dimensions (L x W x H)	250 x 75 x 19 mm	178 x 58 x 16 mm	300 x 80 x 19 mm	Ø 40 mm	Ø 49 mm	Ø 65 mm	Ø 65 mm

● = Standard
● = Not available

Rope and WeightWatcher Beam

CANopen CANopen CANopen

Weight Watcher light			Weight Watcher light MultiRope		Weight Watcher Beam	
AE16 light	AE16 light CANopen	AE8 light	MultiRope	MultiRope CANopen	WeightWatcher Beam	WeightWatcher Beam CANopen
16	16	8	1	1	1	1
12 - 28 VDC	12 - 28 VDC	12 - 28 VDC	12 - 28 VDC	12 - 28 VDC	12 - 28 VDC	12 - 28 VDC
0,8 W	0,8 W	0,8 W	1 W at 12 V DC	1 W at 12 V DC	0,8 W	0,8 W
3 CO, freely programmable	●	2 CO, freely programmable	3 CO, freely programmable	●	3 CO, freely programmable	●
●	●	●	●	●	●	●
12 - 230 VAC/DC	●	●	12 - 230 VAC/DC	●	12 - 230 VAC/DC	●
●	●	●	●	●	●	●
LED, 5 digits	LED, 5 digits	LED, 5 digits	LED, 4 digits	LED, 4 digits	LED, 4 digits	LED, 4 digits
3 keys	3 keys	3 keys	3 keys	3 keys	3 keys	3 keys
●	●	●	●	●	●	●
●	●	●	●	●	●	●
	●	●	●	●	●	●
115 x 80 x 40 mm	115 x 80 x 40 mm	115 x 80 x 40 mm	sensor is connected to the evaluation unit	sensor is connected to the evaluation unit	sensor is connected to the evaluation unit	sensor is connected to the evaluation unit
456000	456005	456100				

LS light	MultiRope 200	MultiRope 300	WW Beam 1200	WW Beam 2200	WW Beam 5000
456500	456600 456605 CANopen	456700 456705 CANopen	456200 456205 CANopen	456225 456230 CANopen	456250 456255 CANopen
4 - 13 mm $^{5}/_{32}$-$^{1}/_{2}$ inch	4 - 26 mm $^{5}/_{32}$-1 inch	4 - 26 mm $^{5}/_{32}$-1 inch			
0 - 500 kg 0 - 1100 lbs	300 - 2500 kg 600 - 5500 lbs	700 - 6000 kg 1500 - 13200 lbs	300 - 1200 kg 660 - 2600 lbs	300 - 2200 kg 660 - 4850 lbs	500 - 5000 kg 1100 - 11000 lbs
Strain Gauge	Strain Gauge		Strain Gauge		
●	●	●	●	●	●
●	●	●	●	●	●
0° - 70°C	0° - 70°C	0° - 70°C	0° - 70°C	0° - 70°C	0° - 70°C
2,5 m	5 m	5 m	2,5 m	2,5 m	2,5 m
110 x 70 x 22 mm	220 x 220 x 132 mm	220 x 320 x 142 mm	205 x 64 x 41 mm	205 x 64 x 48 mm	205 x 64 x 50 mm

weight watcher

ROPELOAD MEASUREMENT SYSTEM

SAFETY TOOLS CREATED BY

henning

MADE IN GERMANY

WEIGHTWATCHER OVER-LOAD CONTROL SYSTEM

The Henning over-load control system is based on a patented measuring principle. There is a sensor installed at each rope in the shaft or at the hitchpoint. These sensors no longer need to be calibrated using weights; the time-consuming usage of weights is no longer necessary. Storekeeping, too, is simplified: one sensor module matches different rope diameters or eye bolt diameters.
The rope tension setting assistant integrated in the software is unique and amazingly simple: it only takes a few minutes to achieve an optimum setting of a complete set of ropes. This and the permanent rope tension monitoring feature allow the undesired and needless wear of traction sheaves and ropes to be prevented in a reliable manner.

HIGHLIGHTS OF OVERLOAD CONTROL SYSTEM WEIGHTWATCHER:

- Calibration with weights not necessary thanks to the patented measuring principle
- Suitable for different rope diameters and rope types and belts
- 4 programmable alarm relays or CANopen (depending on the evaluation unit)
- Up to 12 rope sensors per evaluation unit
- Integrated slack rope alarm
- Permanent monitoring of the load distribution
- Equipped with USB interface and free PC software
- Software wizard for the adjustment of the optimum single rope tension to avoid unnecessary wear
- automatic compensation chains and rope measurement

OPERATION OF THE WEIGHTWATCHER SYSTEM:

Every single rope is fitted with a load sensor. Either directly at the rope or at the hitchpoint. The sensors are simply plugged into the evaluation unit AE 12 which – without any calibration by weights – immediately indicates the overall weight and the individual rope loads.
The desired alarms are set via the display and keys of the unit or via the free PC software. The unit then triggers the alarms for up to 4 different load limits, slack rope conditions and any diverging individual rope loads.

Installed and ready for operation within minutes!

SINCE 2015, THE OVERLOAD CONTROL SYSTEM WEIGHTWATCHER OFFERS YOU THE CHOICE BETWEEN 2 DIFFERENT LOAD SENSOR TYPES:

A Rope Load Sensor LS:

- SENSOR LS The ropeload sensor LS is designed following a patented measuring principle. With this principle, time consuming calibration of the sensors with weights is no longer neccessary. Henning offers 3 diffrent types of sensors, suitable for a wide variety of rope diameters and loads. Each sensor is provided with 2,5 m cable.

B DONUT LOADSENSOR RC:

- Donut SENSOR RC Henning Donut load sensors are mounted at hitchpoint, at the top of the car (1:1) or in the shaft (2:1). With their unique design, these sensors also do not need time consumpting calibration with test weights. Donut Sensors RC can be used directly after installation and connection to evaluation unit AE12.

LS1 RC

EVALUATION UNIT AE 12

AE12

In addition to 12 independent measuring channels, Evaluation Unit AE12 offers 3 alarm relays for freely programmable loads as well as an additional alarm relay for slack-rope montoring and load distribution monitoring.
It can be programmed either by means of its LED-display and three keys or via USBinterface and the free software WeightWatcher. Rope load sensors are to be ordered separately according to your individual needs.
Option with analog output, either via 4-20 mA or 2-10 V reports the load or total weight of the cabin.
Automatic compensation of balancing chains / rope weights.
In multiple suspension systems the balancing chains and rope weights are automatically compensated when the HOLD input is connected.

TECHNICAL DATA:

Power supply voltage	12 V – 28 V DC
Power consumption	max. 4 W
Number of relay outputs	4
max. switching voltage	250 V AC
max. starting current	15 A
max. constant current	10 A
max. switching power (ohmic load)	2500 W
max. switching power (ind. load)	500 VA
min. switching power	0.3 W
Numbers of measuring channels	12
Range	30 Hz
Sampling frequency	100 Hz
HOLD input	12 V - 230 V AC/DC
Type of protection	IP 20

Type	Article-No.
Evaluation unit AE 12	455000
Evaluation unit AE 12 with analogue output	455002
Power unit 15W, 230 V for AE 12 / AE 16 / AE8	455006

AE12 SOFTWARE

By this software, the parameters of evaluation unit AE12 can be set and the unit configurated.

Furthermore, it provides the comfortable rope-adjusting assistant enabling you to adjust a rope set within a few minutes.

Free download from www.henning-gmbh.de

EVALUATION UNIT AE 12

AE 12

CANopen

In addition to 12 independent measuring channels, Evaluation Unit AE12 offers CANopen connection.
It can be programmed either by means of its LED-display and three keys or via USBinterface and the free software WeightWatcher.
Rope load sensors are to be ordered separately according to your individual needs.
.

TECHNICAL DATA:

Power supply voltage	12 V – 28 V DC
Power consumption	max. 4 W
Numbers of measuring channels	12
Range	30 Hz
Sampling frequency	100 Hz
CANopen	DSP 417

Type	Article-No.
Evaluation unit AE 12 CANopen	455005
Power unit 15W, 230 V for AE 12 / AE 16 / AE8	455006

CASING – FOR EVALUATION UNITS AE12 / AE16 /AE8 LIGHT, TO BE INSTALLED ON THE ELEVATOR CAR

Equipped with a top-hat rail to bear the evaluation unit and 2 PG-glands (M20 and M25) for the control and mains lines.
In your order please state the number of rope load sensors to be used.

TECHNICAL DATA:

Type of protection	IP 65
Material	Thermoplast
Colour	grey RAL 7035, wall-side for cable lead-in
Cable lead-in	max.M 40

Type	Article-No.
Casing AE12/AE16/AE8	455020

1.0

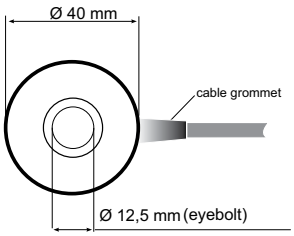
RC300

DONUT LOAD SENSOR RC 300

Our RC-series of “Donut”- sensors are able be measure absolute weights at each rope or belt, thereby making calibration with weights redundant. Plug ,n Play. The sensors are ready for immediate use after connection with an evaluation unit AE12 without the time consuming entering of calibration parameters for the sensors.

TECHNICAL DATA:

Max. Eye Bolt Ø	12,2 mm / $^{15}/_{32}$inch
Roughly equivalent to rope diameter	4 - 8 mm / $^{5}/_{32}$ inch - $^{5}/_{16}$ inch
Application range	0 - 300 kg / 0 - 660 lbs
Maximum load	600 kg / 1300 lbs
Breaking load	1200 kg / 2600 lbs
Sensor Height	32,0 mm
Sensor Ø	40,0 mm
Connection cable length	2,5 m
Type of protection	IP 20



Type	Article-No.
Donut load sensor RC 300	455250

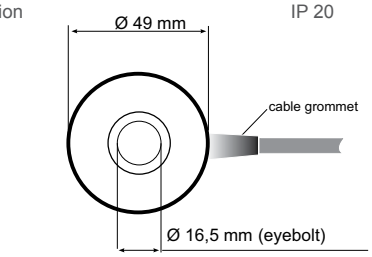
RC500

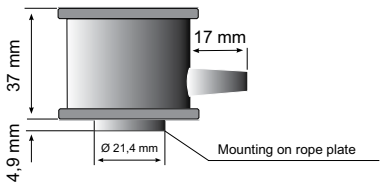
DONUT LOAD SENSOR RC 500

Our RC-series of “Donut”-sensors are able be measure absolute weights at each rope or belt, thereby making calibration with weights redundant. Plug´n Play. The sensors are ready for immediate use after connection with an evaluation unit AE12 without the time consuming entering of calibration parameters for the
sensors.

TECHNICAL DATA:

Max. Eye Bolt Ø	16,2 mm / $^{5}/_{8}$ inch
Roughly equivalent to rope diameter	6 - 14 mm / $^{1}/_{4}$ inch - $^{9}/_{16}$ inch
Application range	0 - 500 kg / 0 - 1100 lbs
Maximum load	1000 kg / 2200 lbs
Breaking load	2000 kg / 4400 lbs
Sensor Height	37,0 mm
Sensor Ø	49,0 mm
Connection cable length	2,5 m
Type of protection	IP 20





Type	Article-No.
Donut load sensor RC 500	455255

OVER-LOAD CONTROL SYSTEM

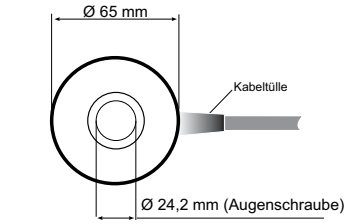
RC1000

DONUT LOAD SENSOR RC 1000

Our RC-series of “Donut”-sensors are able be measure absolute weights at each rope or belt, thereby making calibration with weights redundant. Plug ,n Play. The sensors are ready for immediate use after connection with an evaluation unit AE12 without the time consuming entering of calibration parameters for the sensors.

TECHNICAL DATA:

Max. Eye Bolt Ø	24,0 mm / $^{15}/_{16}$ inch
Roughly equivalent to rope diameter	12 - 17 mm / $^{15}/_{32}$ inch - $^{11}/_{16}$ inch
Application range	0 - 1000 kg / 0 - 2200 lbs
Maximum load	2000 kg / 4400 lbs
Breaking load	4000 kg / 8800 lbs
Sensor Height	47,4 mm
Sensor Ø	65,0 mm
Connection cable length	2,5 m
Type of protection	IP 20



Type	Article-No.
Donut load sensor RC 1000	455260

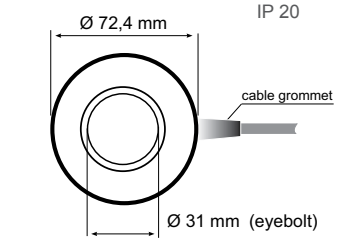
RC3500

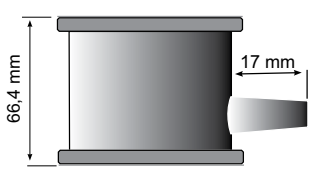
DONUT LOAD SENSOR RC 3500

Our RC-series of “Donut”-sensors are able be measure absolute weights at each rope or belt, thereby making calibration with weights redundant. Plug ,n Play. The sensors are ready for immediate use after connection with an evaluation unit AE12 without the time consuming entering of calibration parameters for the sensors.

TECHNICAL DATA:

Max. Eye Bolt Ø	30,8 mm / 1 $^{7}/_{32}$ inch
Roughly equivalent to rope diameter	16 - 25 mm / $^{5}/_{8}$ inch - 1 inch
Application range	0 - 3500 kg / 0 - 7700 lbs
Maximum load	7000 kg / 15.400 lbs
Breaking load	14.000 kg / 30.800 lbs
Sensor Height	66,4 mm
Sensor Ø	72,4 mm
Connection cable length	2,5 m
Type of protection	IP 20





Type	Article-No.
Donut load sensor RC 3500	455265

LS1

ROPE LOAD SENSOR LS 1
(6 - 16 mm / 1/4 - 5/8 inch)

Design of the rope load sensor LS1 follows a patented measuring principle ceasing the expensive calibration of the elevator by test weights. The rope load sensor suits rope diameters from 6 mm (1/4 inch) to 16 mm (5/8 inch) and is ready for use. It is provided with a mains lead of 2,5 m length.

TECHNICAL DATA:

Rope diameter	6 mm - 16 mm / 1/4 inch - 5/8 inch
Application range	0 - 500 kg / 0 - 1100 lbs (± 2,5% FSR)
Maximum load	1000 kg / 2200 lbs
Breaking load	2000 kg / 4400 lbs
L x W x H (mm)	250 x 75 x 19
Connection cable length	2,5 m
Temperature range	0 °C - 70 °C
Type of protection	IP 20

Type	Article-No.
Rope load sensor LS 1 (6 - 16 mm / 1/4 - 5/8 inch)	455500
LS connection cable extension up to 20 m	455505

LS2

ROPE LOAD SENSOR LS 2
(4 - 10 mm / 5/32 - 3/8 inch)

Design of the rope load sensor LS2 follows a patented measuring principle ceasing the expensive calibration of the elevator by test weights. The rope load sensor suits rope diameters from 4 mm (5/32 inch) to 10 mm (3/8 inch) and is ready for use. It is provided with a mains lead of 2,5 m length.

TECHNICAL DATA:

Rope diameter	4 mm - 10 mm / 5/32 inch - 3/8 inch
Application range	0 - 300 kg / 0 - 660 lbs (± 2,5% FSR)
Maximum load	600 kg / 1320 lbs
Breaking load	1200 kg / 2640 lbs
L x W x H (mm)	178 x 58 x 16
Connection cable length	2,5 m
Temperature range	0 °C - 70 °C
Type of protection	IP 20

Typ	Artikel-Nr.
Seillast-Sensor LS 2 (4 - 10 mm / 5/32 inch - 3/8 inch)	455400
LS Anschlusskabelverlängerung bis 20 m	455505

OVER-LOAD CONTROL SYSTEM

ROPE LOAD SENSOR LS 2000
(6 - 16 mm / / 1/4 - 5/8 inch)

Rope load sensor for special use with extended measuring range.
Inclusive Pre-calibrated for rope diameters - and Measuring ranges.

TECHNICAL DATA:

Rope diameter	6 mm - 16 mm / 1/4 inch - 5/8 inch
Application range	200 - 2000 kg / 400 - 4500 lbs (± 2,5% FSR)
Maximum load	4000 kg / 9000 lbs
Breaking load	6000 kg / 18000 lbs
L x B x H (mm)	300 x 80 x 19
Connection	cable length 2,5 m
Temperature range	0 °C - 70 °C
Type of protection	IP 20

Please specify for the Pre-calibration the following datas:
cabin load kg
max. load kg
mounting attachment type
max. ropes amount
Rope diameter mm / inch

Type	Article-No.
Rope load sensor LS 2000 (6 -16 mm / 1/4 - 5/8 inch)	455850
LS connection cable extension up to 20 m	455505

LS2000

OVER-LOAD CONTROL SYSTEM WEIGHTWATCHER LIGHT

During the development of the WeightWatcher Light series our development division could rely on the knowhow acquired over many years. Great store was set by the ease of installation and the request put forward by many customers to provide a reasonably priced but high-quality overload measuring system which meets the requirements of EN 81. The load measuring sensors LS Light round off the existing product line of Henning load measuring systems in the reasonably priced segment and are suitable for almost all fitting situations. Thanks to its small size the LS sensor even fits where shaft ceilings are low and ropes are closely spaced. The applications in the range of 4 to 13 mm rope diameters also meet requirements. Up to 8 or rather 16 sensors can be connected to the evaluation unit Light using the 2.5 m long cables.

HIGHLIGHTS OF THE WEIGHTWATCHER LIGHTOVER-LOAD CONTROL SYSTEM:

- Extremely attractive value for money option
- Ease of installation
- One type of sensor for rope diameters ranging from 4 to 13 mm
- Extremely compact rope load sensors
- freely programmable output relays
- Measurements possible on up to 8 or 16 ropes

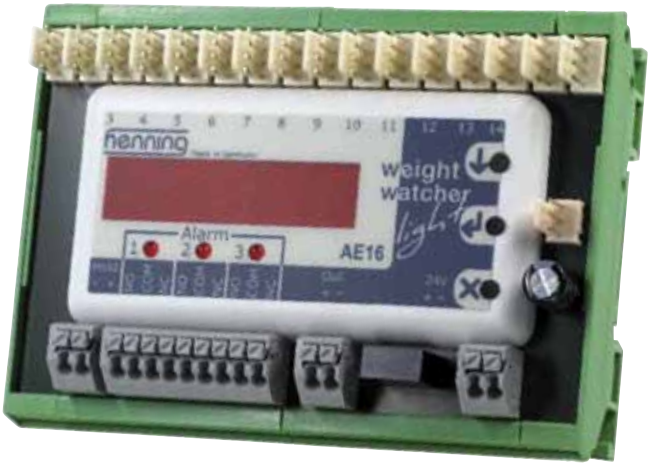
OPERATION OF WEIGHTWATCHER LIGHT:

During installation the pin of the retaining strap is opened and the sensor is put against the rope. The retaining strap is then closed again and the clamping screw is tightened up until the rope is pressed against the sensor body. An exact tightening torque must not be applied. Special tools are not needed.
The LS Light rope load sensors are connected to the evaluation units AE 8 Light or AE16 Light.

The installation with plugs (no terminals) saves time and prevents mistakes being made during connection. After the rope load sensors LS Light are calibrated, the evaluation unit Light displays the load of the lift car. A connection to the control system is effected using freely programmable alarm relays. As soon as the parameters for the output relays are entered via the built-in keys, the unit is ready for operation.

OVER-LOAD CONTROL SYSTEM

EVALUATION UNIT AE16 LIGHT



AE16

In addition to 16 independent measuring channels, AE16 offers 3 freely programmable output relays with changeover contacts.

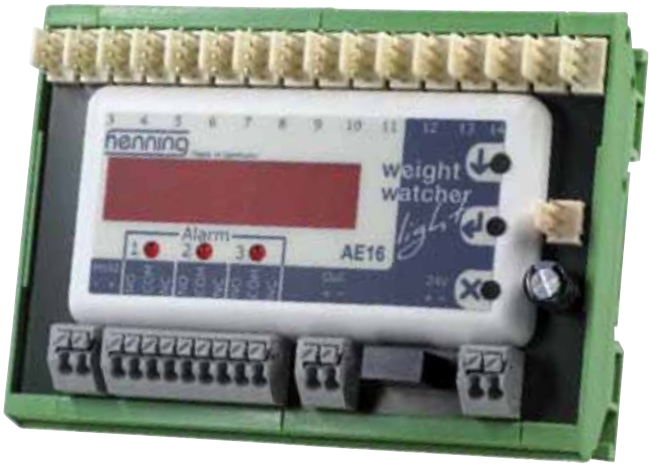
This unit can be programmed by its keys. Rope load sensors LS Light are to be ordered separately according to your needs.

TECHNICAL DATA:

Power supply voltage	12 V - 28 V DC
Power consumption	< 0,8 W
Number of relay outputs	3
max. switching voltage	250 VAC
Number of measuring channels	16
HOLD input	12 V - 230 V AC/DC

Type	Article-No.
Evaluation unit AE16 Light	456000
Power unit 15W, 230 V suitable for AE12 / AE 16 / AE8	455006

EVALUATION UNIT AE16 LIGHT



AE16 CANopen

In addition to 16 independent measuring channels, AE16 CANopen offers connection to elevator control via CANopen lift..

This unit can be programmed by its keys. Rope load sensors LS Light are to be ordered separately according to your needs.

TECHNICAL DATA:

Power supply voltage	12 V - 28 V DC
Power consumption	< 0,8 W
Number of measuring channels	16
CANopen	DSP 417

Typ	Artikel-Nr.
Evaluation unit AE16 Light CANopen	456002
Power unit 15W, 230 V suitable for AE12 / AE 16 / AE8	455006

EVALUATION UNIT AE8 LIGHT

AE8

Up to 8 sensors can be connected by their 2,5-m-cables to the evaluation unit AE8 light. This is connected to the lift control unit via 2 freely programmable alarm-relays or an optional analog output.
Under preparation is a CANopen execution of AE8 Light. Configuration of the unit is executed by three buttons and the 5-digit LED-indicator. AE8 Light is highly energyef-ficient
with regard to its typical power draw of less than 0,8 W.

TECHNICAL DATA:

Power supply voltage	12 - 28 VDC
Power consumption	max. 0,8 W
Number of relay outputs	2
max. switching voltage	250 VAC
Number of measuring channels	8

Type	Article-No.
Evaluation unit AE8 Light	456100
Power unit 15W, 230 V suitable for AE12 / AE 16 / AE	455006

OVER-LOAD CONTROL SYSTEM

ROPE LOAD SENSOR LS LIGHT

Rope load sensors LS Light are made for low lift shaft heads and narrow-layed ropes and suit rope diameters of 4 to 13 mm ($^{5}/_{32}$ - $^{1}/_{2}$ inch). They suit almost every low and narrow siting.

TECHNICAL DATA:

Rope diameter	4 - 13 mm / $^{5}/_{32}$ - $^{1}/_{2}$ inch
Application range	0 - 500 kg / 0 - 1100 lbs
Maximum load	1000 kg / 2200 lbs
Breaking load	2000 kg / 4400 lbs
L x W x H (mm)	110 x 70 x 22
Cable length	2,5 m
Temperature range	0°C - 70°C

Type	Article-No.
Rope load sensor LS Light 4 - 13 mm / $^{5}/_{32}$ - $^{1}/_{2}$ inch	456500

LSlight

CASING – FOR EVALUATION UNITS AE12 AND AE16 LIGHT, TO BE INSTALLED ON THE ELEVATOR CAR.

Equipped with a top-hat rail to bear the evaluation unit and 2 PG-glands (M20 and M25) for the control and mains lines.

In your order please state the number of rope load sensors to be used.

TECHNICAL DATA:

Type of protection	IP 65
Material	Thermoplast
Colour	grey RAL 7035, wall-side for cable lead-in
Cable lead-in max.	M 40

Type	Article-No
Casing AE12/AE16/AE8	455020

ÜBERLASTMESSSYSTEM WEIGHTWATCHER LIGHT MULTIROPE

For the development of the latest product of the WeightWatcher Light series, the MultiRope measuring system, our development division could rely on the knowhow gathered over many years.
Great store was set by the ease of installation and the request put forward by many customers to provide a reasonably priced but high-quality overload measuring system which meets the requirements of EN 81. The applications in the range of 4 to 26 / $^{5}/_{32}$ - 1 inch mm rope diameters also meet requirements. Measuring ranges of up to max. 10.000 kg / 22000 lbs (optional for MultiRope 300) allow a wide variety of applications. The Multirope 200 and 300 load sensors are particularly easy to handle allowing them to be installed in a wide variety of fitting
situations. Even closely spaced ropes or low shaft ceilings present no problem.

HIGHLIGHTS OF WEIGHTWATCHER LIGHT 1 MULTIROPE:

- Extremely attractive value for money option
- Ease of installation
- Two types of sensor for 200 and 300 mm clamping widths
- For 4 to 26 mm / $^{5}/_{32}$ - 1 inch rope diameters
- Measuring range up to 10.000 kg / 22.000 lbs
- 2 freely programmable output relays
- Integrated evaluation unit

OPERATION OF THE WEIGHTWATCHER LIGHT MULTIROPE:

Only a few minutes are needed to install the MultiRope sensors:

The installation only requires the screws of the retaining strap to be loosened and the sensor to be put against the rope. The retaining strap is then closed again and the screws are tightened up until the rope is pressed against the sensor body. A specific tightening torque must not be applied. No special tools are required.

Thanks to the integrated evaluation unit no additional cables are needed to connect the sensor and evaluation unit. The unit can be configured using three keys and the 4-digit LED display.

The unit is connected to the control system by means of 2 freely programmable alarm relays.

After the MultiRope sensor has been calibrated, the evaluation unit displays the lift car load.

As soon as the parameters for the 2 output relays are entered using the built-in keys, the unit is ready for operation.

OVER-LOAD CONTROL SYSTEM

MULTIROPE

MULTIROPE CANopen

WEIGHTWATCHER LIGHT MULTIROPE

TECHNICAL DATA:

relays	2 changeover relays
Max. contact voltage	250 V AC/220 V Dc
Max. making current:	30 V DC 1 A 125 V AC 0,3 A
Max. permanent current	30 V DC 1 A 125 V AC 0,3 A
Max. switching capacity (ohmic load)	62 VA
Max. switching capacity (ind. load)	62 VA
Min. contact rating	10 mV DC 0,01 mA
Length cable set	2,5 m
supply voltage	12 V - 28 V DC
Hold-input	12 V - 230 AC/DC

MULTIROPE 200

TECHNICAL DATA:

Clamp width	200 mm / 7 $^{7}/_{8}$ inch
Rope diameter	4 mm - 26 mm / $^{5}/_{32}$ - 1 inch
Application range	300 kg - 2500 kg / 600 - 5500 lbs
Max. load	5000 kg / 11000 lbs
Dimensions L x B x H	220 mm x 220 mm x 132 mm
Weight ca.	3,5 kg

MULTIROPE 300

TECHNICAL DATA:

Clamp width	300 mm / 11 $^{13}/_{16}$ inch
Rope diameter	4 mm - 26 mm / $^{5}/_{32}$ - 1 inch
Application range	700 kg - 6000 kg / 1500 - 13200 lbs (optional 10000 kg / 22000 lbs)
Max. load	12000 kg / 26450 lbs
Dimensions L x B x H	220 mm x 320 mm x 142 mm
Weight: ca.	8,0 kg

Type	Article-No.
MultiRope 200	456600
MultiRope 300	456700

WEIGHTWATCHER LIGHT MULTIROPE

CANopen

Length cable set	2,5 m
supply voltage	12 V - 28 V DC
Hold-input	12 V - 230 AC/DC
CANopen Lift	DSP 417

MULTIROPE 200 CANopen

TECHNICAL DATA:

Clamp width	200 mm / 7 $^{7}/_{8}$ inch
Rope diameter	4 mm - 26 mm / $^{5}/_{32}$ - 1 inch
Application range	300 kg - 2500 kg / 600 - 5500 lbs
Max. load	5000 kg / 11000 lbs
Dimensions L x B x H	220 mm x 220 mm x 132 mm
Weight ca.	3,5 kg

MULTIROPE 300 CANopen

TECHNICAL DATA:

Clamp width	300 mm / 11 $^{13}/_{16}$ inch
Rope diameter	4 mm - 26 mm / $^{5}/_{32}$ - 1 inch
Application range	700 kg - 6000 kg / 1500 - 13200 lbs (optional 10000 kg / 22000 lbs)
Max. load	12000 kg / 26450 lbs
Dimensions L x B x H	220 mm x 320 mm x 142 mm
Weight: ca.	8,0 kg

Type	Article-No.
MultiRope 200 CANopen	456605
MultiRope 300 CANopen	456705

OVER-LOAD CONTROL SYSTEM WEIGHTWATCHER LIGHT BEAM

Our research and development team infused their experience of many years in the development of the WeightWatcher Beam, the latest product of the Weight-Watcher light family. They particularly focussed on easy mounting and, following many customers' wishes, on a reasonably priced but highgrade quality of this overload measuring system that meets the requirements of EN 81.

The WeightWatcher Beam 1200, 2200 and 5000 load sensors are therefore especially compact and handy facilitating the mounting in almost every installation siting. You won't have a problem shaft heads of little height.

HIGHLIGHTS DES WEIGHTWATCHER LIGHT BEAM

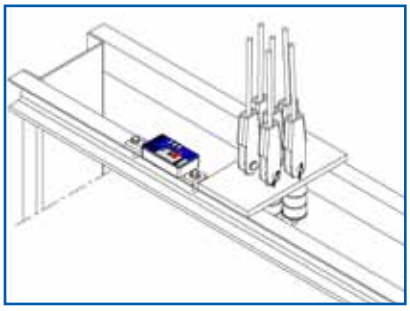
- very attractive price-performance ratio
- simple mounting
- three sensor type suits different loads
- 2 programmable output relays
- integrated evaluation unit
- integrated suspension chain compensation and rope mass with multiple suspension

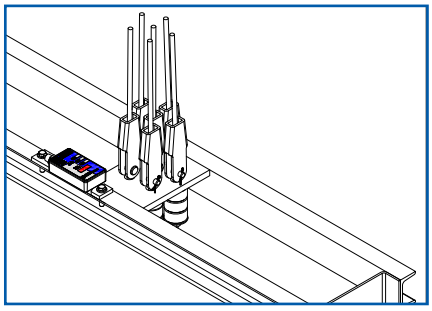
OPERATION OF THE WEIGHTWATCHER LIGHT BEAM:

The WeightWatcher Beam sensor are mounted within a few minutes:
Due to integrated evaluation unit there is no need for additional wiring between sensor and evaluation unit.

After calibrating the WeightWatcher Beam sensor, the evaluation unit indicates the load in the cabin.

The unit is ready for operation after entering the parameters of the 2 output relays by the integrated buttons.





OVER-LOAD CONTROL SYSTEM

BEAM

WEIGHTWATCHER BEAM

TECHNICAL DATA:

relays	2 change-over relays
Max. contact voltage	250 V AC/220 V DC
Max. making current	30 V DC 1 A 125 V AC 0.3 A
Max. permanent current	30 V DC 1 A
Max. switching capacity (ohmic load)	62 VA
Max. switching capacity (ind. load)	62 VA
Min. contact rating	10 mV DC 0.01 mA
Length of cable set	2,5 m
supply voltage	12 V - 28 V DC
Hold input	12 V - 230 AC/DC

WEIGHTWATCHER BEAM 1200

TECHNICAL DATA:

Load range (car + rated load)	300 kg - 1200 kg / 660 - 2600 lbs
Breaking load	3000 kg / 6600 lbs
Dimensions (mm)	205 x 64 x 41
Weight approx.	600 g

WEIGHTWATCHER BEAM 2200

TECHNICAL DATA:

Load range (car + rated load)	300 kg - 2200 kg / 660 - 4850 lbs
Breaking load	5500 kg / 12100 lbs
Dimensions (mm)	205 x 64 x 48
Weight approx.	890 g

WEIGHTWATCHER BEAM 5000

TECHNICAL DATA:

Load range (car + rated load)	500 kg - 5000 kg / 1100 - 11000 lbs
Breaking load	12500 kg / 27500 llbs
Dimensions (mm)	205 x 64 x 50
Weight approx.	940 g

Type	Article-No.
WeightWatcher Beam 1200	456200
WeightWatcher Beam 2200	456225
WeightWatcher Beam 5000	456250

BEAM CANopen

WEIGHTWATCHER BEAM 1200 CANopen

Length cable set	2,5 m
supply voltage	12 V - 28 V DC
Hold-input	12 V - 230 AC/DC
CANopen Lift	DSP 417

TECHNICAL DATA:

Load range (car + rated load)	300 kg - 1200 kg / 660 - 2600 lbs
Breaking load	3000 kg / 6600 lbs
Dimensions (mm)	205 x 64 x 41
Weight approx.	600 g

WEIGHTWATCHER BEAM 2200 CANopen

TECHNICAL DATA:

Load range (car + rated load)	300 kg - 2200 kg / 660 - 4850 lbs
Breaking load	5500 kg / 12100 lbs
Dimensions (mm)	205 x 64 x 48
Weight approx.	890 g

WEIGHTWATCHER BEAM 5000 CANopen

TECHNICAL DATA:

Load range (car + rated load)	500 kg - 5000 kg / 1100 - 11000 lbs
Breaking load	12500 kg / 27500 llbs
Dimensions (mm)	205 x 64 x 50
Weight approx.	940 g

Type	Article-No.
WeightWatcher Beam 1200 CANopen	456205
WeightWatcher Beam 2200 CANopen	456230
WeightWatcher Beam 5000 CANopen	456255

MOBILE WEIGHTWATCHER ROPE LOAD MEASURING SYSTEM

Inadequately set ropes and excessive overall weights cause an undesired and premature wear. The WeightWatcher rope load measuring system allows ropes / belts to be set and
lift car and counterweight loads to be weighed in no time at all.
The LSM Belt sensor especially developed for belts allows measurements to be carried out on 30 to 60 mm wide belts.The integrated rope setting assistant guides you through the
rope setting procedure and records every measurement with a report that can later be printed out on the PC.
This makes the mobile WeightWatcher an optimum tool for your service work. Apart from weighing the lift car and counterweight loads, all single rope loads can be displayed and
adjusted within a few minutes to their optimum settings using the integrated rope setting assistant.
Optional extension possible with helful features: graph storage allows measurement, storage and evaluation of weighing the lift car and counterweight loads, throughout car use
there are shown counterweight load measurments in proportion between lift car and counter weight.
The variants with BlueTooth acsess using the available Android App with all Android smartphones + tablets and so permits a contemporary use.

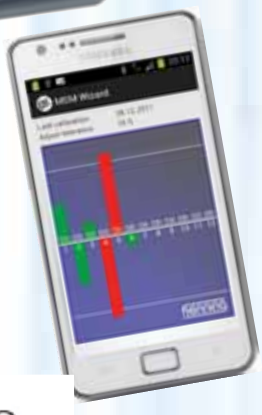
ROPE LOAD MEASURING SYSTEM

HIGHLIGHTS OF THE MOBILE WEIGHTWATCHER

- Time-saving adjustment of rope tensions
- Quick measurement of lift car and counterweight loads
- LSM rope load sensors with quick-action clamping facility
- Integrated software assistant for an ideal setting of single rope tensions
- For different rope diameters and rope types dia. 4 -10 mm / $^{5}/_{32}$ inch - $^{3}/_{8}$ inch, dia. 6 -16 / $^{1}/_{4}$ inch - $^{5}/_{8}$ inch or dia. 9,5 - 24 / $^{1}/_{4}$ inch - $^{5}/_{8}$ inch mm as well as for belts (30 mm und 60 mm / 1 $^{3}/_{16}$ - 2 $^{23}/_{64}$ inch)
- No calibration with weights necessary
- 12 measuring channels for up to 12 ropes
- Report can be printed out via the supplied PC software
- in the basic version 2 GB Speicher, optional 4 GB and 8 GB internal memory
- easy appliance via Touchscreen
- electrical power supply with modern Lithium-Ionen storage battery
- optional BlueTooth acsess to the use of smartphones / tablets (Android)
- optional with high-tec QI-charge facility

OPERATION

Every rope / belt is fitted with a load sensor. After the sensor is put against the rope / belt only a clamping lever has to be shifted. Up to 12 sensors are simply plugged into the evaluation unit MSM12 which – withoutany calibration with weights – immediately displays the overall weight and the individual rope loads.
A uniform rope setting is now extremely easy: within a few minutes an integrated rope load assistant guides you through the single rope adjustment steps which the software has already calculated in advance.



The rope load assistant specifies a setting for each single rope.
The rope setting can be stored in the unit for documentation purposes.
This allows the ropes to be set in a comfortable manner even with complicated suspension modes and a high number of ropes and no longer costs a lot of time.
It is also possible to store numerous rope load measurements in the internal memory of the MSM12 which can later be transferred to a database using the free software for quality assurance purposes or be archived as a printed document.

Bluetooth®

MOBILE EVALUATION UNIT MSM 12

for mobile sensors LSM 1, LSM 2, LSM XL and LSM Belt
(rope diameter 6 -16 mm / $^{1}/_{4}$ - $^{5}/_{8}$ inch, 4 -10 mm / $^{5}/_{32}$ - $^{3}/_{8}$ inch, 9,5 - 24 mm / $^{3}/_{8}$ - $1^{5}/_{16}$ inch, belt 30 mm and 60 mm / $1\ ^{3}/_{16}$ - $2\ ^{23}/_{64}$ inch)

MSM 12 mobile evaluation unit for mobile rope load sensors and belts

KIT COMPRISES:

- **1 MSM 12**
- **USB connection cable**
- **charging unit 230 V Features:**
- **Measurement of single loads and total weight**
- **rope tension assistant / wizard for quick cable adjustment**
- **Convenient menu with settings of the suspension variant, unit weight, tolerance**
- **Storage of complete documentation**
- **Color touch screen for easy operation**
- **Available in many languages (list available on request and is constantly expanding)**
- **Advanced lithium-ion batteries**
- **BlueTooth variants Extended / Premium can be connected via android app with smartphones / tablets**

TECHNICAL DATA:

Measuring channels:	**12**
bandwidth:	**30 Hz**
sampling frequency:	**100 Hz**
interfaces:	**USB, BlueTooth optional**
L x W x H (mm):	**190 x 138 x 46**

MSM 12	Basic	Extended	Premium
Article-No.	**455105**	**455106**	**455107**
memory	2 GB	4 GB	8 GB
battery capacity	4,5 Ah	6,75 Ah	9 Ah
BlueTooth Class 2	●	●	●
Qi-charge	●	●	●

● = Standard

● = Not available

More rope load sensors LSM 1, LSM 2, LSM XL or LSM Belt can be ordered separately.

Optionale Software-packet		Article-No.
Curve storage	Measures and stores the rope tensions / individual weights during the ride to allow rope sets to be optimized later	**455155**
Counterweight compensation measurement	Assistant allowing counterweight compensations to be simplified without the use of weights or additional tools, storage and preparation of reports for future documentations	**455160**

accessories		Article-No.
USB-Stick		**455096**
Qi-charge station		**455097**
MSM12 protective bag		**455099**

ROPE LOAD MEASURING SYSTEM

LSM1SET

LSM 1 KIT:

4 MOBILE ROPE SENSORS LSM 1 FOR 6 - 16 mm / $^{1}/_{4}$ - $^{5}/_{8}$ inch ropes

KIT COMPRISES:

- 4 mobile rope sensors LSM 1 (Art.-N0 455600)
- transport case for max 10 mobile sensors required:

Mobile evaluation unit MSM 12, Art.-No. 455105, 455106 or 455107
More rope load sensors (LSM1, LSM2, LSM XL or LSM Belt) can be ordered separately

Type	Article-No.
LSM 1 Kit: 4 mobile rope load sensors LSM 1 ropes 6 -16 mm / $^{1}/_{4}$ - $^{5}/_{8}$ inch incl. transport case	455101
additional sensors LSM 1	455600

LSM 1 SET
inclusive transport case

LSM2SET

LSM 2 KIT:

4 MOBILE ROPE SENSORS LSM 2 FOR 4 - 10 mm / $^{3}/_{16}$ - $^{5}/_{32}$ inch ropes

KIT COMPRISES:

- 4 mobile rope sensors LSM 2 (Art.-No. 455700)
- transport case for max 10 mobile sensors

required: Mobile evaluation unit MSM 12, Art.-No. 455105, 455106 or 455107
More rope load sensors (LSM1, LSM2, LSM-XL or LSM Belt) can be ordered separately

Type	Article-No.
LSM 2 Kit: 4 mobile rope load sensors LSM 1 ropes 6 -16 mm / $^{3}/_{16}$ - $^{5}/_{32}$ inch incl. transport case	455201
additional sensors LSM 2	455700

LSM 2 SET
inclusive transport case

LSM XL SET

LSM BELT SET
OTIS

LSM BELT SET
SCHINDLER

LSM XL SET:

4 MOBILE ROPE LOAD SENSORS LSM XL FOR 9,5 - 24 mm / $^{3}/_{8}$ - $^{15}/_{16}$ inch Ropes

KIT COMPRISES:

- 4 Sensors LSM XL (Item No. 455351)
- transport case for max 8 mobile rope load sensors LSM XL

required: Mobile evaluation unit MSM 12, Article-No. 455105,455106 or 455107.
More rope load sensors (LSM1, LSM2,LSM-XL or LSM Belt) can be ordered separately

LSM XL SET
inclusive transport case

Typ	Article-No.
LSM XL Kit: 4 mobile rope load sensors LSM XL for ropes 9,5 - 24 mm / $^{3}/_{8}$ - $^{15}/_{16}$ inch / including transport case	455301
additional sensors LSM-XL	455351

LSM BELT SET:

3 MOBILE MOBILE BELT SENSOR LSM BELT FOR 30 mm / 60 mm / 1 $^{3}/_{16}$ + 2 $^{23}/_{64}$ inch belts

KIT COMPRISES:

- 3 sensors LSM Belt (Item No. 455800)
- Rugged carrying case for max 5 mobile belt LSM Belt

required: Mobile Basic evaluation MSM 12, Article-No. 455105,455106 or 455107.
More rope load sensors (LSM1, LSM2, LSM or LSM-XL Belt) can be ordered separately

LSM BELT SET
inclusive transport case

Typ	Article-No.
LSM Belt Set: 3 mobile belt sensors LSM Belt for OTIS load carrier 30 mm / 60 mm / 1 $^{3}/_{16}$ + 2 $^{23}/_{64}$ inch (recognizable by the blue lever) incl. transport case	455815
LSM Belt Set: 3 mobile belt sensors LSM Belt for Schindler load carrier 30 mm / 60 mm / 1 $^{3}/_{16}$ + 2 $^{23}/_{64}$ inch (ecognizable by the blue lever) incl. transport case	455816
LSM Belt mobile belt sensors for OTIS load carrier 30 mm / 60 mm / 1 $^{3}/_{16}$ + 2 $^{23}/_{64}$ inch (recognizable by the blue lever)	455805
LSM Belt mobile belt sensors for Schindler load carrier 30 mm / 60 mm / 1 $^{3}/_{16}$ + 2 $^{23}/_{64}$ inch (ecognizable by the blue lever)	455806
LSM connection cable extension up to 1,5 m (further extentions on request)	455353

ROPE LOAD MEASURING SYSTEM

LSM 1

MOBILE ROPE LOAD SENSOR LSM 1 (6 - 16 mm / $^{1}/_{4}$ - $^{5}/_{8}$ inch)

LSM1 is designed according to a patented measuring principle that does no longer require any expensive elevator calibration by testing weights.
This rope load sensor suits rope diameters from 6 mm ($^{1}/_{4}$ inch) to 16 mm ($^{5}/_{8}$ inch) and can be applied straightaway.
Its excentric lever allows the sensor to be fitted to the rope within a few seconds.
LSM 1 is equipped with a mains cable of 0,8 m length.

TECHNICAL DATA:

Rope diameter	6 mm - 16 mm / $^{1}/_{4}$ inch - $^{5}/_{8}$ inch
Application range	0 - 500 kg / 0 -1100 lbs (± 2,5% FSR)
Maximum load	1000 kg / 2200 lbs
Breaking load	2000 kg / 4400 lbs
L x W x H (mm)	250 x 75 x 19
Cable length	1,0 m / 39.37 inch
Temperature range	0 °C - 70 °C

Type	Article-No.
Mobile Rope Load Sensor LSM 1 (6 - 16 mm / $^{1}/_{4}$ - $^{5}/_{8}$ inch)	455600
LSM connection cable extension up to 20 m	455620

LSM 2

MOBILE ROPE LOAD SENSOR LSM 2 (4 - 10 mm / $^{5}/_{32}$ - $^{3}/_{8}$ inch)

LSM2 is designed according to a patented measuring principle that does no longer require any expensive elevator calibration by testing weights.

This rope load sensor suits rope diameters from 4 mm ($^{5}/_{32}$ inch) to 10 mm ($^{3}/_{8}$ inch) and can be applied straightaway. Its excentric lever allows the sensor to be fitted to the rope within a few seconds.

LSM2 is equipped with a mains cable of 1,0 m length.

TECHNICAL DATA:

Rope diameter	4 mm - 10 mm / $^{5}/_{32}$ inch - $^{3}/_{8}$ inch
Application range	0 - 300 kg / 0 - 660 lbs (± 2,5% FSR)
Maximum load	600 kg / 1320 lbs
Breaking load	1200 kg / 2640 lbs
L x W x H (mm)	178 x 58 x 16
Cable length	1,0 m / 39.37 inch
Temperature range	0 °C - 70 °C

Type	Article-No.
Mobile Rope Load Sensor LSM 2 (4 - 10 mm / $^{3}/_{16}$ - $^{3}/_{8}$ inch)	455700
LSM connection cable extension up to 20 m	455620

LSM XL

MOBILE ROPE LOAD SENSOR LSM XL (9,5 - 24 mm / 3/8 inch - 15/16 inch)

LSM XL is designed according to a patented measuring principle that does no longer require the expensive elevator calibration by testing weights. This rope load sensor suits rope diameters from 9,5 mm (3/8 inch) to 24 mm (15/16 inch) and can be applied straightaway. Its excentric lever allows the sensor to be fitted to the rope within a few seconds.
It is equipped with a mains cable of 1,5 m length.

TECHNICAL DATA:

Rope diameter	9,5 mm - 24 mm / 3/8 inch - 15/16 inch
Application range	200 - 2000 kg / 400 - 4500 lbs (± 2,5% FSR)
Maximum load	4000 kg / 9000 lbs
Breaking load	6000 kg / 18000 lbs
L x B x H (mm)	570 x 210 x 50
Cable length	1,5 m
Temperature range	0 °C - 70 °C

Type	Article-No.
Mobiler Seilsensor LSM XL (9,5 mm - 24 mm / 3/8 - 15/16 inch)	455351
LSM Anschlusskabelverlängerung bis 20 m	455620

LSM BELT
OTIS

LSM BELT
SCHINDLER

Mobile Belt Load Sensor LSM Belt

SPECIAL LOAD SENSOR FOR BELTS.

LSM-Belt is designed according to a patented measuring principle that does no longer require any expensive elevator calibration by testing weights.
This belt sensor suits belts from 30 mm to 60 mm / 1 3/16 - 2 23/64 inch of width and can be applied straightaway. Its excentric lever allows the belt sensor to be fitted to the belt within a few seconds.
It is equipped with a mains cable of 0,8 m length.

TECHNICAL DATA:

Width of belt	30 mm + 60 mm / 1 3/16 + 2 23/64 inch
Application range	0 - 500 kg / 0 - 1100 lbs (± 2,5% FSR)
Maximum load	1000 kg / 2200 lbs
Breaking load	2000 kg / 4400 lbs
L x W x H (mm)	230 x 120 x 82
Cable length	0,8 m
Temperature range	0 °C - 70 °C

Type	Article-No.
Mobile Belt Load Sensor LSM Belt for OTIS (30 mm + 60 mm / 1 3/16 + 2 23/64 inch) (recognisable on the blue lever)	455805
Mobile Belt Load Sensor LSM Belt for SCHINDLER (30 mm + 60 mm / 1 3/16 + 2 23/64 inch) (recognisable on the red lever)	455806
LSM connection cable extension up to 1,5 m (further extentions on request)	455353

QI-Charging station for MSM12

TECHNICAL DATA:

standard:	QI Standard V1.0/V 1.1
max. voltage:	DC 4.6 - 5.5V
max. current:	1500 - 200 mA
max. capacity:	5W
Efficiency:	72%
Frequency range:	110 K - 205 KHZ
range:	2 - 5 m

Type	Article-No.
Qi-Charging station for MSM12	455097

USB-Ladeadapter für MSM12

Type	Article-No.
USB charging adapter for MSM12	455096

Protective Bag For MSM 12

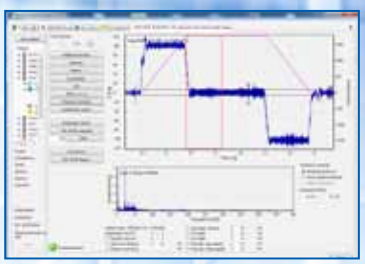
Features of the bag:

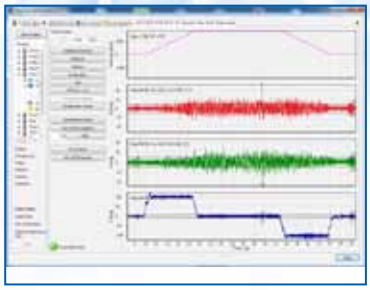
- Material: Cordura, padded, colour black, protection against dust, splashing water and slight impacts
- Carrying strap
- Operating elements and connection sockets (incl. bluetooth) accessible without having to open the bag
- Big transparent viewing panel in the bag

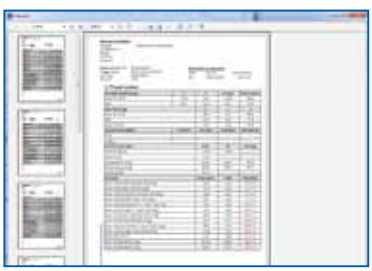
Type	Article-No.
Protective Bag For MSM 12	455099

Lift PC® mobile Diagnosis

DOCUMENTATION OF RIDE QUALITY ACCORDING TO ISO 18738







LIFETIME EXTENTION -
MINIMIZE WEAR AND TEAR

QUICK AND EASY
DIAGNOSIS OF VARIOUS INSTALLATIONS

MOBILE RIDE ANALYZER FOR THE ELEVATOR ACCORDING TO ISO 18738 AND GB /T10058-1997

LiftPC Mobile Diagnosis is a powerful measuring system of modular design, serving for mobile and flexible measurements of acceleration and ride quality of elevators. It is applicable with any laptop or in connection with 3D Acceleration Sensor QS 3.0 or stand alone. Data of acceleration and ride quality of the elevator can precisely be assessed in terms of the standards ISO 18738 and GB/T 10058-1997. LiftPC Mobile Diagnosis can be applied with rope-traction elevators as well as with hydraulically operated elevators.

Stand - Alone- Operation

- internal power supply
- internnal memory
- built in Bluetooth connection
- android app
- QI-charging

Range Of Application

- Documentation of the quality supplied by pre-post comparison
- Service and maintenance of the status quo
- Specific reaction to arising malfunctions
- Preparation of putting into operation and acceptance tests by the authorities

Measuring Characteristics

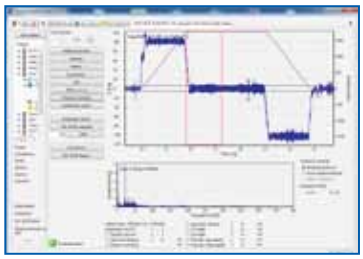
- Acceleration and deceleration behaviour in all 3 axis
- Stubbing and joggling of the car and at the guide rails
- Recognizing door movements

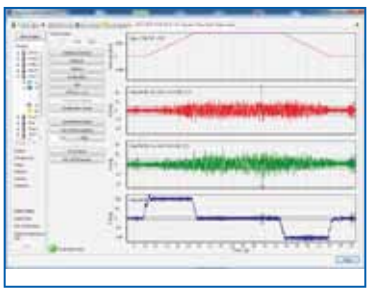
Evaluation Characteristics

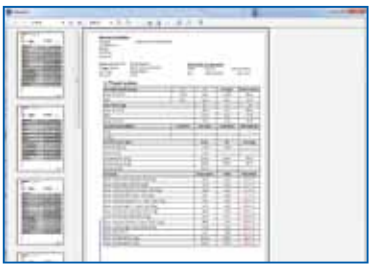
- Documentation of all important data concerning travel acceleration and ride
- Hints to irregularities with doors, guide rails and driving speed control
- Provides exact information of where the malfunction is to be spotted

Design Characteristics

- 3D acceleration sensor for online measuring in all 3 axis
- Pre-calibrated in our factory
- On-the-spot evaluation of the data measured by guided software
- Usage of common evaluation procedures such as filtering attenuation, peakto-peak evaluation as well as frequency analysis up to 1000 cycles per second, sampling rate up to 2000 cycles per second
- Suitable for all kinds of elevators
- System-integrated monitoring of the measuring instruments







Characteristics Of 3D-Acceleration Sensor QS 3

Impact resistant	up to 6.000 g
Range of ambient temperatures from	- 20 °C to + 60 °C
Interfaces to	USB 1.1 and Bluetooth Module / Handheld terminal HT 1.0
Accuracy	+/- 2 g application range per axis
Special feature	electronic self-check function

Range Of Supply

- Acceleration Sensor (QS 3.0) with USB 1.1 connector / Blue tooth optional
- Connecting cable for Sensor – Laptop connection
- Transport case with base plate
- Software for data acquisition,
- Data analysis and storage of diagnosis on CD
- User manual
- Noise module class 2
- Magnetic foot with M6 thread

Type	Article-No.
LiftPC mobile Diagnosis	450005

Noise Level Measuring Module Class 2

EXTENSION UNIT FOR MEASURING NOISES AND ASSESSING THEM ACCORDING TO ISO 18738

Features

- Noise measuring and assessing according to ISO 18738
- Noise measuring synchronous with the elevator travelling
- Edition of the noise level in the evaluation software and the diagnosis report
- Noise measuring module can also be used stand-alone
- included in the mobile diagnosis kit

Range Of Supply

- Noise Level Measuring Module Class 2
- Cable for connection to laptop and battery

TECHNICAL DATA

Measuring range	30 to 130 dB
Resolution	0,1 dB
Accuracy	+/- 1,5 dB
Assessed range of frequency	31,5 Hz - 8 kHz
Time assessment f	ast/slow
Display	3 ½ digit LCD
Operative temperature	4 °C to + 50 °C
Storage temperature	- 20 °C to + 60 °C
Dimensions of casing	256 x 80 x 38 mm (H x W x T)
Weight approx.	240 g (measuring unit)

Type	Article-No.
Noise Level Measuring Module Class 2	450300

RIDEwatcher

RIDEWATCHER

THE MULTIMETER FOR RIDE PROFILES

Setting assistant for the lift system with automatic evaluation of measurements

The RIDEWatcher is a novel measuring unit with an intuitive operating concept allowing lift rides to be measured an analysed in a comfortable and fast manner.
The easy-to-use unit combines measuring sensors and evaluation unit in one robust plastic casing. There is no need for a connection to a laptop or an external evaluation unit.
Thanks to the automatic evaluation of the measurements it is possible to use the unit without any lenghty training / instruction and the information needed to adjust or troubleshoot the lift system is supplied very fast and at low cost.
This makes the RIDEWatcher extremely useful for fitters, planners and experts. It is the ideal tool for a time-saving adjustment of new systems to check the ride characteristics and the installation and to pinpoint any malfunctions.

OPERATION

In order to be able to establish the ride characteristics of a lift system using the RIDEWatcher, the sensor is placed in the middle of the lift car before the ride is started.

As soon as the ride is terminated, a ride profile and other data such as speed and acceleration profiles are available.

These results are immediately evaluated on the basis of specified parameters so that any required system setting corrections can be initiated at short notice.

Einsatzfelder

Applications

- Documentation of the ride profile
- Setting the correct ride parameters
- Measuring the acceleration, deceleration, jerk and speed
- Troubleshooting in case of malfunctions

Measurement features

- Acceleration and deceleration behaviour in Z axis
- Jerks and vibrations of the lift car
- Measurement of the ride profile (e.g. ride at creeping speed)

Evaluation features

- Documents speed, acceleration, deceleration, jerk on the spot
- Automatic evaluation of measurements
- Provides data on ride profile, ride at creeping speed, etc.
- Provides information on the location inside the shaft where a malfunction occurs
- Adjustment of individual limit values for each type of lift
- Makes out a report
- Stores measurements in a database
- Easy and intuitive operation

Technical features of the Ridewatcher

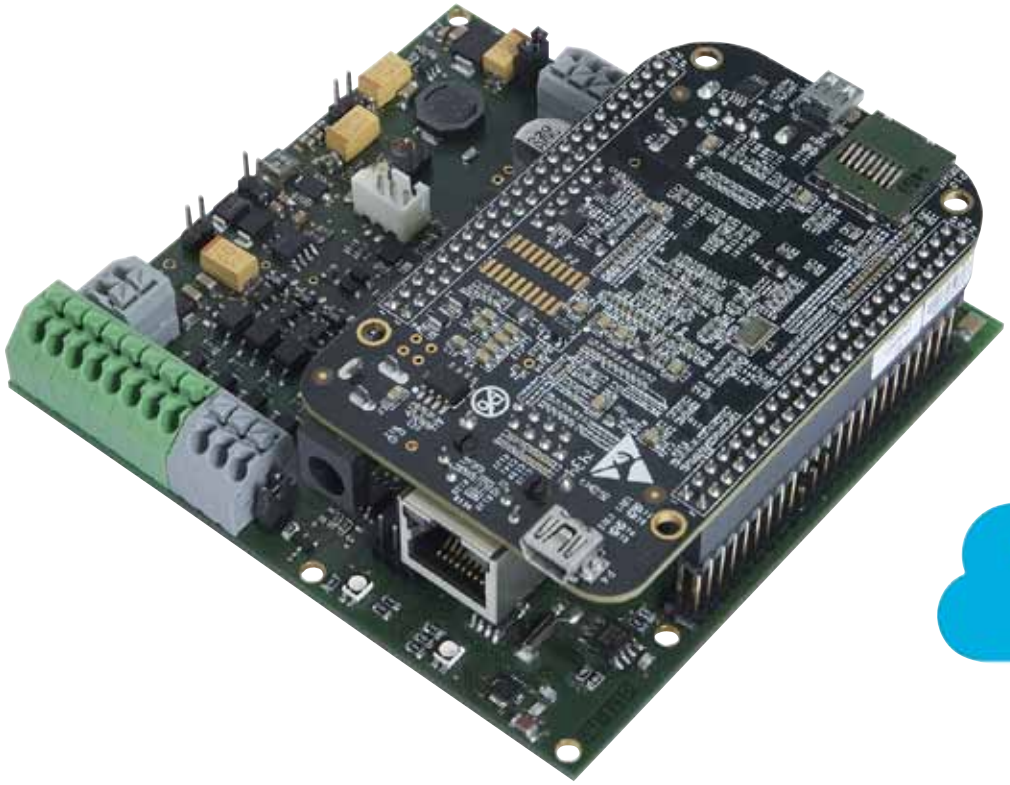
Measuring axes	Z (vertikal), x, y optional
Measuring range	+- 1.0 g
Samplerate	50 Hz
Resolution	1 mg
Temperature range	0 to 60°C
Resistance to shocks	10 g
Interface	USB
Measurement without additional equipment	yes
Measurement memory	yes
User interface	touch display
Power supply	4xAA batteries

Scope of supplies

- RIDEWatcher
- Bag (Art.-Nr. 450410)
- 4 AA Cells

Type	Article-No.
RideWatcher	450400
RideWatcher x, y - axis optional	450401
Tasche für RideWatcher	450410

WEAR watcher



WEARWATCHER

CONDITION-MONITORING-TOOL

The WearWatcher is an acceleration sensor with an integrated analysis unit enabling the condition of the most important physical parameters of the elevator to be monitored.
The WearWatcher permanently monitors the wear of essential components of the elevator system. The sensor is installed on the car and autonomously recognizes (without being connected to the elevator control system) the current ride condition so that door movement, starting, constant ride phases etc. can be separately investigated. In every single ride condition significant characteristics are generated which in their entirety allow long-term trends and abrupt changes in the ride to be determined and fully documented. Even gearboxes and motors can be indirectly detected because vibrations are transmitted through the suspension means to the sensor. The sensor is therefore able to distinguish many wear aspects of critical components such as doors, drives and guides. At the same time sensors on each rope detect the individual rope loads and thus the car load condition.
The system has suitable interfaces that can be connected to higher-level building management systems. Significant changes in the transmitted parameters will cause a warning message to be produced well before a component wear limit is reached so that the required servicing job can be planned in advance and is no longer subject to fixed intervals.
The WearWatcher is an automatic condition monitoring system and therefore an efficient solution ensuring optimum resource efficiency and high system availability.

WearWatcher CM

- Condition monitoring on the basis of acceleration data
- 19 parameters are monitored during every ride
- Automatic daily averaging
- 30 days / 24 months history
- All data are available to the higher-level equipment through the interfaces

WearWatcher Extended

- Condition monitoring on the basis of acceleration data
- 19 parameters are monitored during every ride
- Automatic daily averaging
- 30 days / 24 months history
- All data are available to the higher-level equipment through the interfaces
- Comprehensible automatic trend analyses
- Automatic interpretation of curves
- Automatic monitoring of limits
- Automatic production of alarms and notes

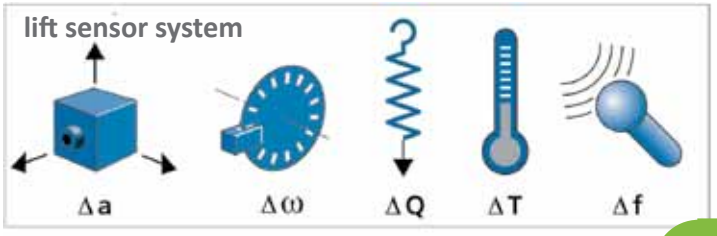
Technical characteristics of the WearWatcher product family

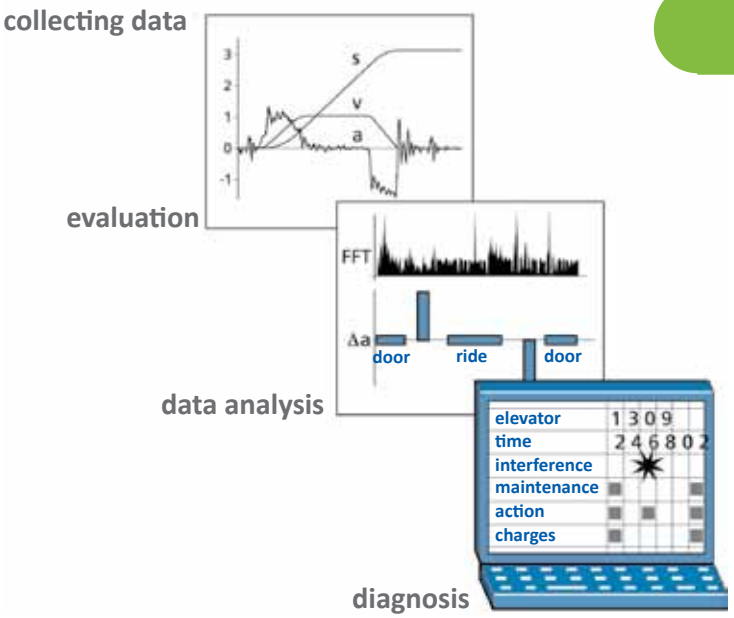
Measuring axes:	X, Y, Z
Measuring range:	+/- 1.0 g
Bandwidth:	50 Hz
Resolution:	1 mg
Shock resistance:	10 g
Interfaces:	USB, CAN, Safeline-Bus, serial (RS 232)
Power supply:	12 – 28 V DC

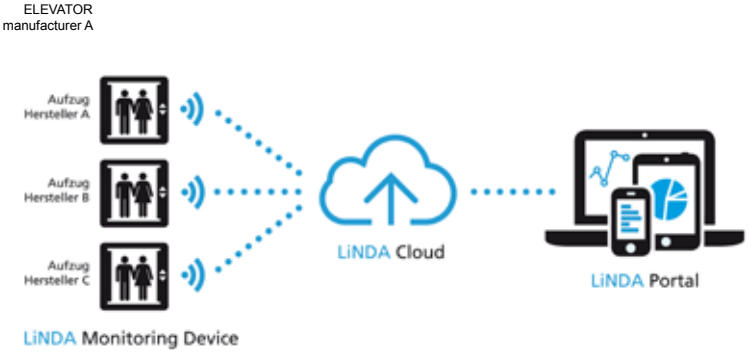
Scope of supplies

WearWatcher unit in a box (L x W x H: 120 x 90 x 25 mm)

Type	Article-No.
WearWatcher CM	450420
WearWatcher Extended	450440





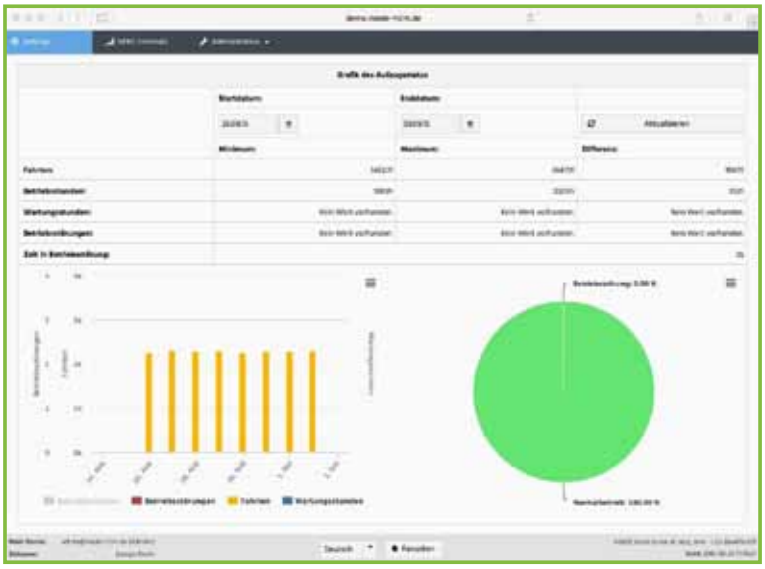


LiNDA Monitoring Device and cloud-servers

Linda is a monitoring system for elevators. The name **LiNDA** stands for “Lift Notification Data Access”

Lift systems can be connected via the LiNDA Monitoring Device and wireless telephone network with the central LiNDA Cloud Server. With PC, tablet or smartphone and an internet connection, the lift data may be viewed at the LiNDA portal. The WEARwatcher data is visualized here and may be subject to further evaluations.

LINDA CLOUD & WEARwatcher



Advantages at a Glance:

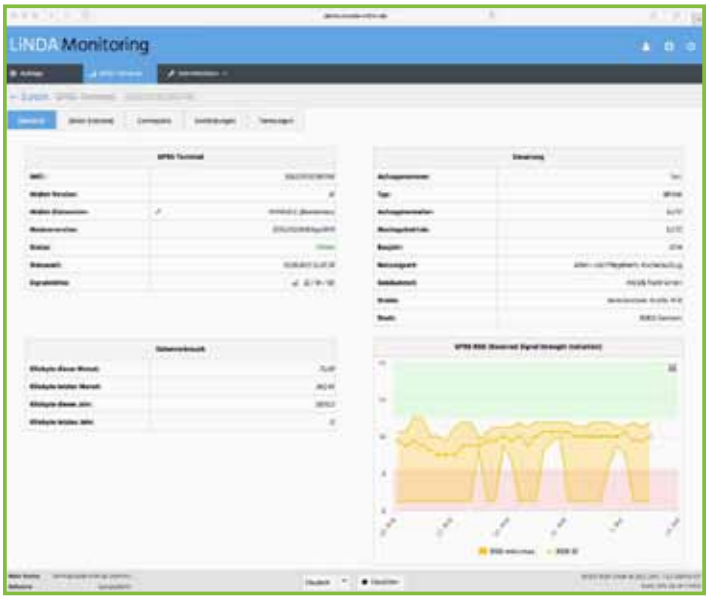
- Improvement of operational safety due to more efficient prediction of failures
- Minimized downtimes
- Service times more efficient planable
- Maximized component lifecycles
- Cost-saving operation of components due to better utilization of wear reserve
- Worldwide data access via optional cloud connection

LiNDA Monitoring Device

The **LiNDA** monitoring device is a GPRS mobile communication terminal, which is connected via serial port to the Henning WEARwatcher.

The Henning WEARwatcher transmits a pre-defined set of data to the monitoring device.

The **LINDA** monitoring device checks the incoming data for violation of limit values (e.g. to trigger an alam directly) and transfers the data periodically to the **LINDA** cloud server.



Scope of Delivery

GSM antenna, holder for caprail and power cable for connection to existing power supply.

Type	Article-No.
LINDA GSM Hardware	on request

Type	Article-No.
LINDA ONLINE SOFTWARE lock-in	on request

3

DAMPING TECHNOLGY FROM HENNING

SAFE AND RELIABLE DAMPING

Lift Buffer LP 40 + LP 50

The Elevator Buffer type LP is an energy dissipation type buffer according to EN 81- and therefore can be universally used for all applications in the construction of elevators. The design type approval permits the use in passenger and freight elevators both under the elevator car and under the counter weight.

The modern design provides many advantages for the construction of today's elevators:

- The buffer is supplied ready for operation with oil and gas filling. Transport and storage are admissible in every position as it is a hermetically closed system. The installation position is vertical.
- The oil level can be verified from the outside by a sight glass without opening the buffer (visual inspection). This reduces the maintenance expenditure of the buffer to a minimum.
- A mechanic safety limit switch to DIN EN 50047 monitors the extended piston rod of the buffer.
- The hydraulic damping permits an optimum retardation of the system in a broad mass range as well as a very large energy conversion.
- The integrated pneumatic spring permits a short construction length of the buffer and low restoring forces after a buffer stroke.
- The oil chamber uses double sealing as leakage protection and thus increases the operating safety.
- An impact plate of rubber provides for damping both the impact noise and shock.
- The contamination or damage of the hard-chrome plated piston rod is avoided by a piston rod protection tube (only LP 40).

Information for inquiry and order:

- Determination of the buffer to EN 81. If other guideline, which one
- Installation under the elevator car or under the counter weight
- Number of buffers per point of impact
- Number of elevators and total number of buffers
- Rated speed of the elevator
- Maximum and minimum mass at impact
- Desired stroke

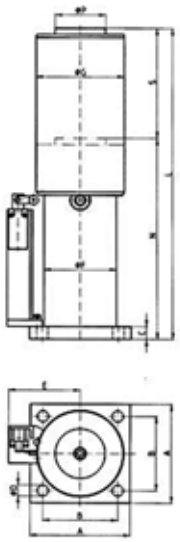
Buffers Type HSAP For Inclined Elevators

This type-tested buffer type HSAP for inclined elevators works according to the hydraulic principle and was specially designed for inclined elevators.

Thanks to its separate hydraulic oil reservoir, it can be used for every inclination angle as from horizontal to vertical, and whether the piston rod points upwards or downwards.

The oil level is easy to check. The high volume of oil available facilitates operation of the buffer and reduces maintenance expenditure.

Design of thebuffer type HSAP is based on that of the proven and according to EN 81-type-examinated Henning LP-series of elevator buffers. Buffers of the line HSAP for inclined elevators are available for travel speeds up to 2,5 m/s.



LP 40 For elevators up to 2,0 m/s rated speed according to EN 81

Dimensions type LP 40:										
S	L	N	A	B	C	D	E	F	G	P
80	305	225	160	120	20	18	112	115	140	80
120	385	265								
175	495	320								
275	715	440								

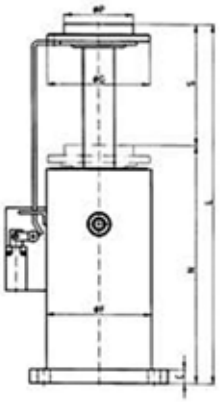
All dimensions in mm.

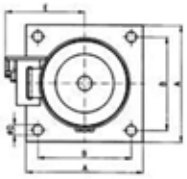
Modifications reserved!

Ambient temperatures for the standard design: +5 °C up to +50 °C.
Other temperatures on request.

Application data type LP 40:

Type	stroke s [mm]	rated speed max. v [m/s] 1)	impact mass min. - max. m [kg]	impact energy E [kNm]	buffer force F [kN]	weight with oil filling G [kg]	Article-No
LP 40 x 80	80	1,0	450 - 3000	4,34	75	14	240080
LP 40 x 120	120	1,3	450 - 3000	6,88	75	16	240120
LP 40 x 175	175	1,6	450 - 3000	10,2	75	19	240175
LP 40 x 275	275	2,0	450 - 3000	16,0	75	24	240275





LP 50 For elevators up to 3,2 m/s rated speed according to EN 81

Application data type LP 50:										
S	L	N	A	B	C	D	E	F	G	P
425	1065	640	300	160	20	18	135	155	150	100
695	1665	970								

All dimensions in mm.

Modifications reserved!

Ambient temperatures for the standard design: +5 °C up to +50 °C.
Other temperatures on request.

Application data type LP 50:

Type	stroke s [mm]	rated speed max. v [m/s] 1)	impact mass min. - max. m [kg]	impact energy max. E E [kNm]	buffer force F [kN]	weight with oil filling G [kg]	Article-No.
LP 50 x 425	425	2,5	500 - 4500	37,4	115	47	250425
LP 50 x 695	695	3,2	600 - 4500	61,1	115	68	250695

Energy-Accumulating Buffer

- Polyurethane-touchdown buffer for single use or in parallel alignment
- Plastic pad positively interlocking with the buffer material
- To be installed either in the shaft pit or at the car resp. counterweight
- To be fixed with a screw M16, in the center, no washer required
- Supporting area should be smooth and approx. 15% more in size than the buffer diameter

Type								Article-No.
Touch-Down Buffer	0,5 m/s	0,63 m/s	0,75 m/s	0,75 m/s	0,85 m/s	1,0 m/s	Admission	
Typ 0801K, D80x80	120 - 1500 kg	120 - 1300 kg	450 - 3000	-	-	200 - 1000 kg	TRA 200	335700
Typ 1002K, D100x170	267 - 2442 kg	400 - 2149 kg	450 - 3000	520 - 1913 kg	610 - 1740 kg	700 - 1542 kg	EN 81	335710
Typ 1251K, D125x80	186 - 3550 kg	232 - 3035 kg	450 - 3000	250 - 1400 kg	290 - 1250 kg	310 - 1000 kg	EN 81	335720
Typ 1411K, D140x110	310 - 4800 kg	310 - 4500 kg	310 - 4019 kg	310 - 3504 kg	310 - 3324 kg	310 - 3324 kg	EN 81	335740
Typ 1651K, D165x80	310 - 7500 kg	310 - 6400 kg	310 - 3000 kg	379 - 2760 kg	463 - 2450 kg	463 - 2450 kg	EN 81	335730

Standard C

Standard E

Standard G

Standard for Haushahn

Door Closer Standard

Execution: optionally with backstop
Regulation: integrated, smooth-running regulation
Surface: galvanically zinc-plated

Type	Closing Power	Article-No.
Standard G Universal	40 N	104000
Standard G Universal	60 N	105000
Standard C Economic, 29 mm Rolle	40 N	104068
Standard C Economic, 24 mm Rolle	40 N	104069
Standard E	40 N	104057
Standard E	60 N	104058
Standard Make Haushahn	40 N	106000

Type	Dimensions	Article-No.
Spare Roller for Standard G, E, Make Haushahn	Ø 29 x 18,5 mm	104007
Spare Roller for Standard C (104068)	Ø 29 x 15 mm	104111
Spare Roller for Standard C (104069)	Ø 25 x 15 mm	104110

Type	Character	Article-No.
Guiding Cam for Standard G, E, Make Haushahn	Sheet-Steel 1,5 Sheer	304006

Door Closer Standard Haushahn for sliding doors

Execution: optionally with backstop
Mounting: support optionally, welded to left or right side
Regulation: integrated, smooth-running regulation
Surface: galvanically zinc-plated

Type	Closing Power	Article-No.
Standard Haushahn With Mounting Support	On Left Side 40 N	106020
Standard Haushahn With Mounting Support	On Right Side 40 N	106010

Spare Roller

Type	Dimensions	Article-No.
Spare Roller Haushahn for Standard Sliding Door	Ø 29 x 18,5 mm	104007

For technical drawings please refer to our homepage www.henning-gmbh.de.

Door Closer Standard Alu/Schindler

Execution: optionally with backstop
Regulation: Integrated, smooth-running regulation
Surface: galvanically zinc-plated, casing made of aluminium

Type	Closing Power	Article-No.
Standard Alu	40 N	204000
Standard Alu	60 N	205000

Spare RollerTyp

Type	Dimensions	Article-No.
Spare Roller for Standard Alu	Ø 29 x 18,5 mm	104007

Guiding Cam

Type	Charakter	Article-No.
Guiding Cam for Standard Alu	Sheet-Steel 1,5 Sheer	304006

Door Closer Execution Z

Execution: optionally with backstop
Regulation: Integrated, smooth-running regulation
Surface: galvanically zinc-plated

Type	Closing Power	Article-No.
Execution Z	40 N	304000
Execution Z	60 N	305000
Execution Z	80 N	306000

Spare Roller Type

Type	Dimensions	Article-No.
Spare Roller for Execution Z	Ø 29 x 18,5 mm	104007

Guiding Cam

Type	Character	Article-No.
Guiding Cam For Execution Z	Cast	304004

For technical drawings please refer to our homepage www.henning-gmbh.de.

Attached Door Closer Mechanism VS (incl. Guiding Cam)

Execution: optionally with backstop
Regulation: Integrated, smooth-running regulation
Surface: galvanically zinc-plated

Type	Closing Power	Article-No.
VS chrome-plated, incl. guiding cam	40 N	304100
VS chrome-plated, incl. guiding cam	60 N	304101

Spare Guiding Cam

Type	Character	Article-No.
Spare Guiding Cam VS	Chrome-Plated	304102

Door Closer Type Phantom

Type	Dimensions	Article-No.
Phantom	40 N	104073
Phantom	60 N	104075

Lever Arm

Type	Dimensions	Article-No.
Lever Arm Phantom short	275 mm	104074
Lever Arm Phantom long	370 mm	104076

For technical drawings please refer to our homepage www.henning-gmbh.de.

Door Closing Mechanism Standard LS-RED For Ceita Doors (incl. Lever Arm)

Type	Closing Power	Article-No.
Standard LS-Red	30 N	104072

Spare Roller

Type	Article-No.
Spare Roller LS With Groove	104106

Spare Lever Arm

Type	Article-No.
Spare Lever Arm LS	104107

Door Closer Type DT / Meiller

Type	Article-No.
DT 1/15 – KL 40	311920
DT 1/15 – KL 40 S	311921
DT 1/15 – KL 127	311922
DT 2 – KL 70	311925

Spare Roller

Type	Article-No.
DT Roller Kit (3 Pieces)	311930

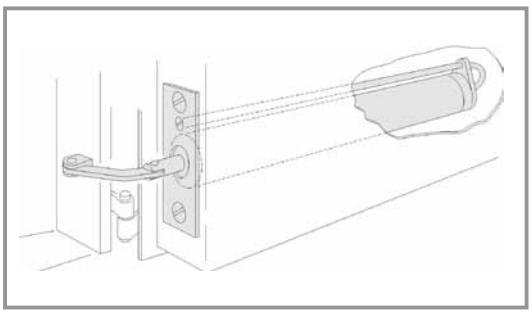
Crossheads

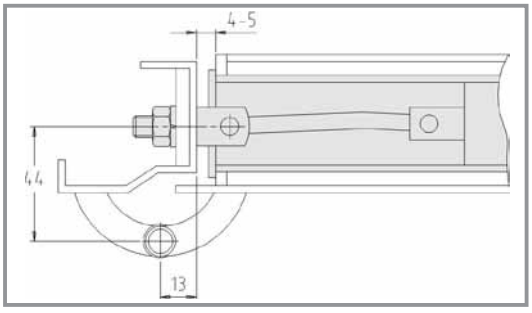
Type	Article-No.
DT Crosshead left	311927
DT Crosshead right	311928

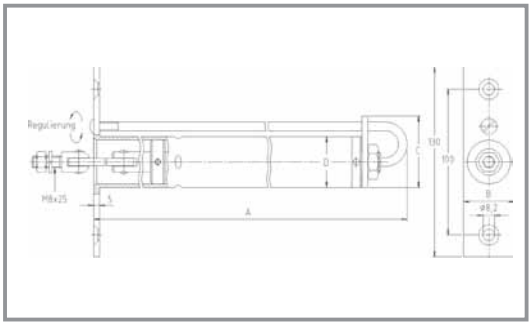
Accessories

Type	Article-No.
DT Roller Axis complete	311932

For technical drawings please refer to our homepage www.henning-gmbh.de.





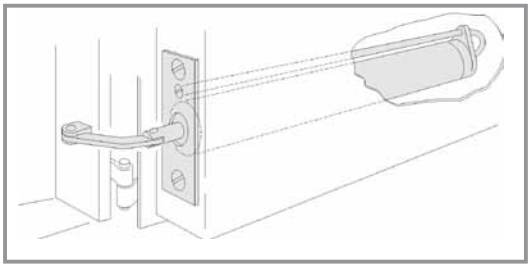


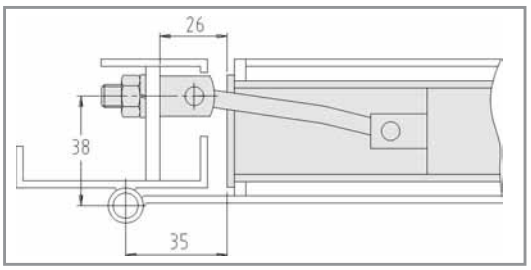
Door Closer in TUBE TYPE AETS with Front Plate integrated in Door Bottom

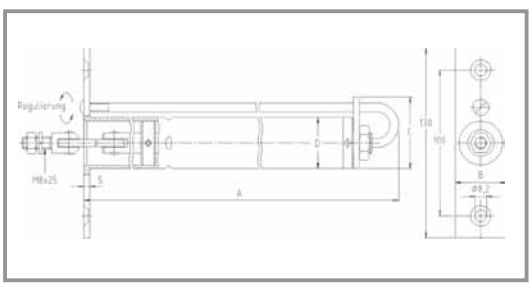
AETS for Landing Doors with Outside Cranked Hinges

Maximum opening angle 165°
Closing time (0 - 90°) 3 - 4 sec
Make sure that there is a pre-tension of 5-10 mm with closed door when installing.

Type	Dimensions (L x H x Ø)	Article-No.
AETS 500/30 A	500 x 47 x 29 mm	401510
AETS 500/35 A	500 x 49 x 34 mm	401525
AETS 500/35 (OSMA)	500 x 49 x 35 mm	401526
AETS 600/30 A	550 x 47 x 29 mm	401610
AETS 600/35 A (Hebel 92 mm)	550 x 49 x 34 mm	401625
AETS 600/35 A (Hebel 75 mm)	550 x 49 x 34 mm	401626





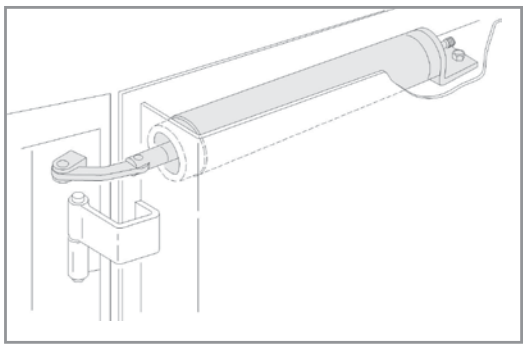


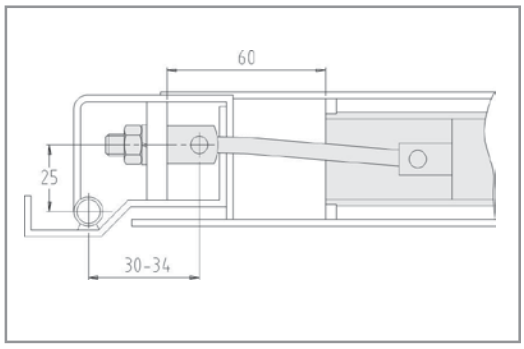
Door Closer in TUBE TYPE AET S integrated in door top for open fitting

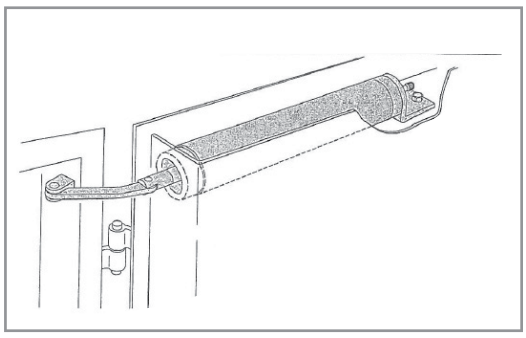
AETS for Landing Doors with Aligned Hinges

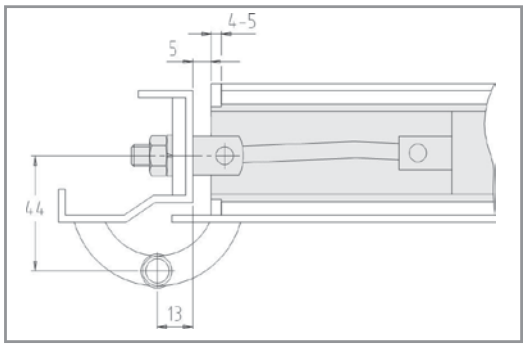
Maximum opening angle 120°
Closing time (0 - 90°) 3 - 4 sec
Make sure that there is a pre-tension of 5-10 mm with closed door when installing.

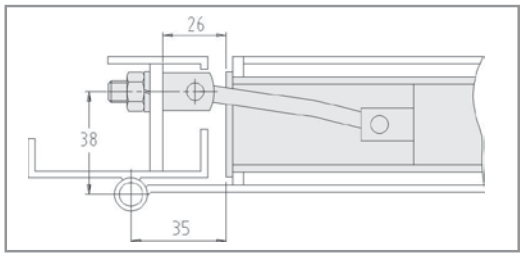
Type	Dimensions (L x H x Ø)	Article-No.
AETS 500/30 K, A	500 x 47 x 29 mm	401515
AETS 500/35 K, A	500 x 49 x 34 mm	401540
AETS 600/30 K, A	550 x 47 x 29 mm	401615
AETS 600/35 K, A	550 x 49 x 34 mm	401635

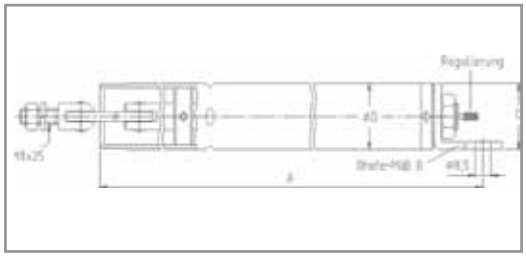












AETS-O for Landing Doors With Inside Cranked Hinges

Maximum opening angle 110º
Closing time starting with reaching the breaking point: 3-4 seconds with closed regulation,10-14 seconds with open regulation. Make sure that there is a pre-tension of 5-10 mm with closed door when installing.

Type	Dimensions (L x H x Ø)	Article-No.
AETS 400/35-O, A	500 x 34 x 34 mm	401600
AETS 400/35-O, AK short	420 x 34 x 34 mm	401350
AETS 400/35-O,KL	320 x 34 x 34 mm	401100
AETS 400/35-O, MAN	500 x 34 x 34 mm	401450
AETS 800/35-O, A	551 x 34 x 34 mm	401500

AET S-O for Landing Doors With Outside Cranked Hinges

Maximum opening angle 165º.
Closing time (0-90º) 3 - 4 sec. Make sure that there is a pre-tension of 5-10 mm with closed door when installing.

Type	Dimensions (L x H x Ø)	Article-No.
AETS 500/35-O, A	500 x 35 x 34 mm	401530
AETS 600/35-O, A	501 x 35 x 34 mm	401630

AETS-KO, A for Landing Doors With Aligned Hinges

Maximum opening angle 120º.
Closing time (0-90º) 3-4 sec. Make sure that there is a pre-tension of 5-10 mm with closed door when installing.

Type	Dimensions (L x H x Ø)	Article-No.
AETS 500/30-KO, A	500 x 30 x 29 mm	401520
AETS 500/35-KO, A	500 x 35 x 34 mm	401550
AETS 600/30-KO, A	551 x 30 x 29 mm	401620
AETS 600/35-KO, A	500 x 35 x 34 mm	401400

For technical drawings please refer to our homepage www.henning-gmbh.de.

Torsion Spring

Length 860 mm

Type	Length	Lead	Article-No.
Torsion Spring	860 mm	max. 100 N	400100

Door Closer STD

each delivery includes the stop plate

Type	Stroke	Article-No.
90/22 for Thyssen-doors	22 mm	319815
90/27 for Otis-doors	27 mm	319915

with integrated regulation

Type	Stroke	Article-No.
90/22 for Thyssen-doors	22 mm	319715

Door Closer BAF For Doors In Elevators Type P053 / P050 / P102 / P103

for one-leaf self-closing swing-type landing doors without lock

Type	Stroke	Article-No.
BAF with modulation	30 - 2000 N	311907
BAF without modulation	preset	311908
Guiding disk 70 mm x 20 mm		93514006

Door Closer EDH-ZR

ZR stands for mechanical modulation
Surface: galvanically zinc-plated
Buffer: alu/rubber
Piston rod extends automatically

Type	Stroke	Article-No.
EDH-ZR, installation dimension 130 mm	50 mm	303200
EDH-ZR, installation dimension 145 mm	60 mm	303330
EDH-ZR, installation dimension 158 mm	70 mm	303300
EDH-ZR, installation dimension 193 mm	100 mm	303310
EDH-ZR, installation dimension 214 mm	120 mm	303320

For technical drawings please refer to our homepage www.henning-gmbh.de.

Door Closer EDH-IR

IR stands for inner regulation, intrinsic modulation
Surface: galvanically zinc-plated
Buffer: Rubber
Piston rod exteds automatically

Type	Stroke	Article-No.
EDH-IR, installation dimension 130 mm	50 mm	302100
EDH-IR, installation dimension 158 mm	70 mm	302200
EDH-IR, installation dimension 193 mm	100 mm	302300
EDH-IR, installation dimension 214 mm	120 mm	302350

Special Door Closer

Type	Execution	Article-No.
H2 without pedestal, installation length 104 mm	30 - 1000 N	303130
H2 with pedestal, installation length 114 mm	30 - 1000 N	303150
H2 with pedestal + spring, installation length 114 mm	30 - 1000 N	303151
H2 with pedestal, installation length 125 mm	30 - 1000 N	303160

For technical drawings please refer to our homepage www.henning-gmbh.de.

Door Closer ZDH-IR

IR stands for intrinsic modulation
Surface: galvanically zinc-plated
Buffer: rubber
Piston rod is extended:
F = extends automatically by spring force
S = extends by the thrust applied by counterpart

Type	Stroke	Article-No.
ZDH-IR, installation length 137 mm, extension F/F	50/50 mm	312100
ZDH-IR, installation length 137 mm, extension S/S	50/50 mm	312105
ZDH-IR, installation length 137 mm, extension F/S	70/50mm	312130
ZDH-IR, installation length 164 mm, extension F/F	70/70 mm	312200
ZDH-IR, installation length 220 mm, extension F/S (Type Rathgeber)	50/50 mm	312150
ZDH-IR, installation length 220 mm, extension F/F	100/100 mm	312400
ZDH-IR, installation length 235 mm, extension F/F	80/80 mm	312300
ZDH-IR, installation length 260 mm, extension F/S (Type Rathgeber)	70/70 mm	312250
ZDH-IR, installation length 290 mm, extension F/F	80/80 mm	312350

Door Closer ZDH-ZR

ZR stands for mechanical modulation
Surface: galvanically zinc-plated
Buffer: aluminium / plastic
Piston rod is extended:
F = extends automatically by spring force
S = extends by the thrust applied by counterpart

Type	Stroke	Article-No.
ZDH-ZR, installation length 136 mm, extension F/F	35/35 mm	311500
ZDH-ZR, installation length 137 mm, extension F/S	50/50 mm	311700
ZDH-ZR, installation length 235 mm, extension F/F	120/120 mm	311350
ZDH-ZR, installation length 220 mm, extension F/S (Type Rathgeber)	50/50 mm	311100
ZDH-ZR, installation length 260 mm, extension F/F (Schm. & Sohn)	60/80 mm	311555
ZDH-ZR, installation length 260 mm, extension F/S (Type Schm. & Sohn)	60/60 mm	311550
ZDH-ZR, installation length 260 mm, extension S/F	60/80 mm	311556
ZDH-ZR, installation length 260 mm, extension F/F	80/80 mm	311281
ZDH-ZR, installation length 280 mm, extension F/S	60/60 mm	311155
ZDH-ZR, installation length 260 mm, extension F/S	70/50 mm	311400
ZDH-ZR, installation length 260 mm, extension S/S	70/70 mm	311252
ZDH-ZR, installation length 260 mm, extension F/S (Type Rathgeber)	70/70 mm	311250
ZDH-ZR, installation length 260 mm, extension S/F (piston rod protrudes 20 mm)	70/90 mm	311560
ZDH-ZR, installation length 290 mm, extension F/S	90/70 mm	311450

For technical drawings please refer to our homepage www.henning-gmbh.de.

Door Closer ZDH-BG-ZR

ZR stands for mechanical modulation
Surface: galvanically zinc-plated
Buffer: aluminium / rubber
Piston rod is extended:
F = extends automatically by spring force
S = extends by the thrust applied by counterpart

Type	Stroke	Article-No.
EDH-BG-ZR, installation length 132 mm extension S/S (Type Peters)	55/55 mm	311800
EDH-BG-ZR, installation length 132 mm extension S/S	30/30 mm	311750

Door Closer ZDH – 120 BG -ZR (For Doors Type Thyssen)

ZR stands for mechanical modulation
Surface: galvanically zinc-plated
Buffer: aluminium / plastic
Piston rod is extended:
F = extends automatically by spring force
S = extends by the thrust applied by the counterpart

Type	Stroke	Article-No.
ZDH – 120BG-ZR, installation length 208 mm extension S/S	120/120 mm	311601

For technical drawings please refer to our homepage www.henning-gmbh.de.

Gas Spring GS – 110 BB – BB – MX (Type Hävemeier & Sander)

Surface: painted in black

Type	Stroke	Article-No
GS-100 BB-BB-MX, tube length 110 mm, Thrust 400 N	110 mm	922135
GS-100 BB-BB-MX tube length 110 mm, Thrust 600 N	110 mm	922134

Accessories for Door Closer Type EDH and ZDH

Shape A

Shape B

Shape C

Shape D

Type	Execution	Article-No
Shape A	aluminium/rubber	92850013
Shape B	aluminium/plastic	92850015
Shape C	aluminium/O-Rings	92850017
Shape D	rubber	90016024

For technical drawings please refer to our homepage www.henning-gmbh.de.

Henning LED - Design from the coalarea

- we grant your elevator a new illuminating facelift.

■ **No pitch blackness:**

Henning-LED illuminates the mining area.

As soon as darkness arrives in the coal area, a whole series of Henning ECO LEDs illuminates the region.

There is more to discover than industrial cuture. All over the citylandscape panels and spots send a soft brightness in the dark area.

Either in Museum of International Art or for shopping metropolis:

Henning sets a fascinating presentation space for internationally renowned artists showing their artwork under the right illumination.

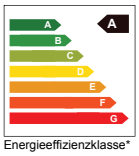
In the large department stores the Henning LED are creating a wonderful atmosphere for fashion trends.

■

Coal-mine Zollverein

LED -
LESS ELECTRICITY FOR ECONOMICAL ILLUMINATION

HENNING LED-Design



Energieeffizienzklasse*

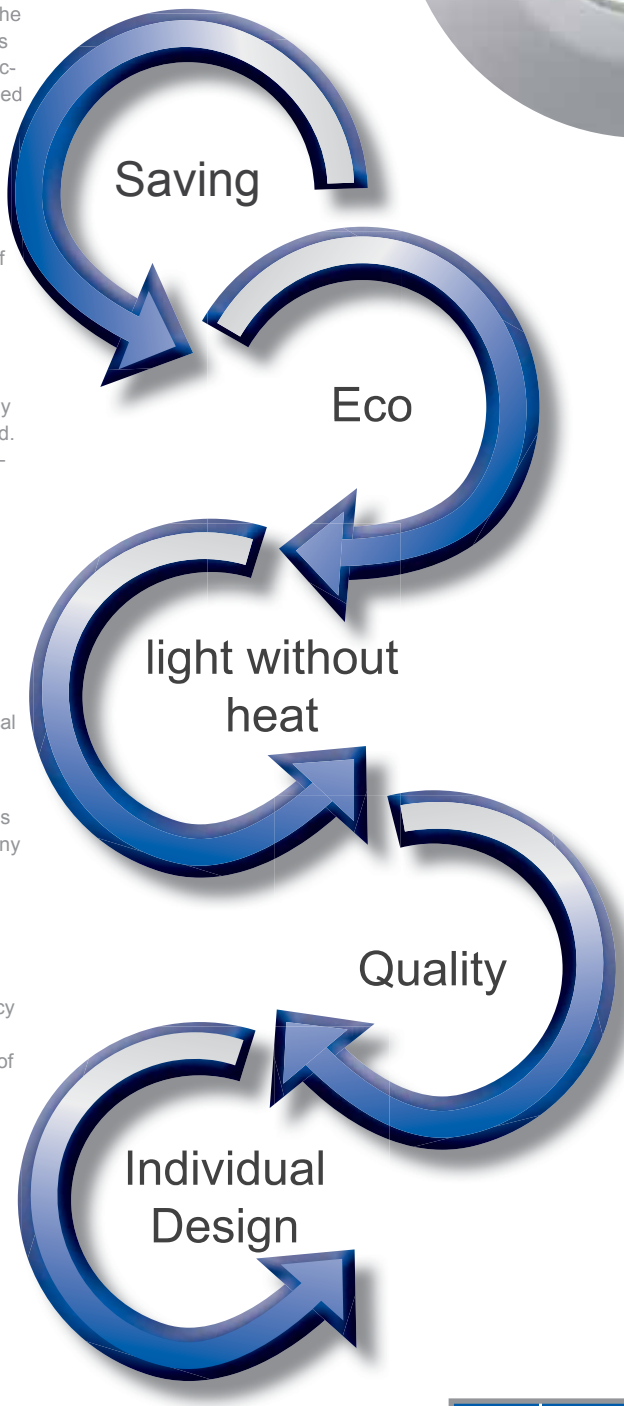
LED (Light Emitting Diode)

The term LED is an abbreviation of the words Light Emitting Diode. An LED consists of several layers (emitting layer) semiconducting material together. Power is now controlled by these layers, thereby produced light.

The better these semiconductor layers,

the better the light output. The goal is a higher light output, which is designated by the unit lumen / watt. Likewise, the choice of the semiconductor has an impact

to the color of light. Because of the semiconductor crystal proceeds only slight light radiation, the metal is hemispherical below the crystal. Thereby, the light is scattered. By the lens-shaped housing, the light is bundled. Thus, LEDs with only a few milliamps of current lights very bright.



Terms

Luminous flux: Lumen [lm]

The luminous flux describes the total light power output which is delivered in a spherical radius of the light source.

The unit of measure for the luminous flux is lumen, which is abbreviated as [lm]. It is thus possible to measure an example of how many lumens having a conventional 40 watt bulb.

Luminous efficiency: lumens / watt [lm / W]

The ratio of the luminous flux and is called light output. Based on the luminous efficiency of the efficiency or the efficiency of a light source can be estimated. The abbreviation of lumens per watt is [lm / W].

Henning spots illuminance: Lumen[lm]

360 lm normal
72 lm emergency lighting

Illuminance: lux [lx]

The illuminance is a receiver-measured variable and is a measure of the brightness. One lux corresponds to the luminous intensity, which produces a candle at a distance of one meter. Where a luminous flux

(1 lumen) evenly over an area of one square meter (1 m 2), this corresponds to an illuminance of 1 lux. Lux is abbreviated with [lx] = lm / m2 lumens per square meter.

Color temperature: Kelvin [K]

Color temperatures are given mainly in white tones of bulbs. The color temperature indicates whether the light looks more cold or hot.

The color temperature is shown in Kelvin and abbreviated as [K]. A distinction is made of color temperatures often three main categories.

Warm, neutral and cold white light.

lifetime Henning LED FlatLight-Panel

llifetime > 50.000 hours
temperature Range -10°C bis 40°C

Luminous flux	Panel					
2800-3000K	300x300 mm	600x300 mm	900-300 mm	1200-300 mm	600x600mm	1200-600mm
2800-3000K (neutral)	700 lm	845 lm	1300 lm	1972 lm	1754 lm	2864 lm
4000-5000K (daylight)	835 lm	1050 lm	1560 lm	2056 lm	1840 lm	3300 lm
Power	19W	22W	30W	39W	39W	74W

Brightness in Lumens	LED	Energy Saving Lamp	Halogenlamp	light bulb
1.300		20 W	70 W	100 W
1.100				
900	12 W	15 W	53 W	75 W
700		11 W	42 W	60 W
500	9 W			
300	6 W	7 W	28 W	40 W
100	3 W	5 W	18 W	25 W
				15 W

ILLUMINATION TECHNOLOGY

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Legend

- Limited scratch and impact resistance thanks to hardened safety glass pane
- Scratch and impact resistance according to EN 81-71 category 1
- Scratch and impact resistance according to EN 81-71 category 2
- Limited fir resistance thanks to hardened safety glass pane
- Fireproof according to EN 81-71 category 1
- Fireproof according to EN 81-71 category 2
- Homogenous LED lighting field
- Limited Theft proof thanks to concealed/hardly accessible screws, can only be removed using special tools (Allan key)
- Safety Class System III
- Indoor Use Only

LED-Flatlight-Spot d60

Brightly lit lift cabin, even in the upper areas, thanks to a new LED technology with homogenous light field

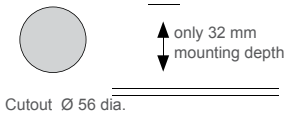
LED-Flatlight-Spot d60

LED-Flatlight-Spot d60 with Additional Spot shade Ø 70 mm

Type	Article-No.
Flatlight-Spot-d60 natural/warm	465700
Flatlight-Spot-d60 daylight	465710

Power Units	Article-No.
Power unit C20 for 1-2 spots	465610
Power unit C-60 N-extern for 1-6 spots + dimmer + port for emergency power supply 16-24 V/3 W	465510
emergency power supply NSG, In 230 V, Out 24V DC, capacity 1.2 Ah	465511

Accessories	Article-No.
Additional intermediate cable 1.7 m	465551
Additional spot shade d60 - aluminium Ø 70 mm	465701



Required number of lamps according to EN 81-1/2
2 natural spots up to 1 m² for stainless steel cabs and longest side 1 m, ceiling height up to 2.2 m
Recommendation:
4 spots / 1.5 m²
6 spots / 2.0 m²

ILLUMINATION TECHNOLOGY

LED FOR NEW CONSTRCTIONS AND MODERNISATION

stainless steel ceiling with LED Flatlight Spot d60

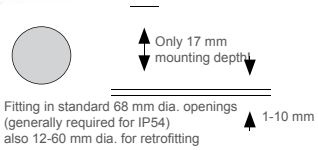
White aluminium ceiling with LED Flatlight Spot d60

FEATURES:

- 3 W homogenous light field without dazzling light spots
- Limited impact- and fire resistance thanks to 3 mm glass pane
- Protected against theft through installation bracket
- Connection cable plug-and-socket system with 1.7 m intermediate cable

LED-Flatlight-Spot d82

Homogenous round spot fitting in all 12-60 mm and 68 mm ceiling openings


Only 17 mm
mounting depth
Fitting in standard 68 mm dia. openings
(generally required for IP54)
also 12-60 mm dia. for retrofitting
1-10 mm

Type	Enclosure colour	Light colour	Class	Article-No.
Flatlight-Spot-d82	stainless steel-Look	natural/warm		465800
Flatlight-Spot-d82	stainless steel-Look	daylight		465805
Flatlight-Spot-d82	white	natural/warm		465810
Flatlight-Spot-d82	white	daylight		465815
Flatlight-Spot-d82	gold	natural/warm		465820
Flatlight-Spot-d82	gold	daylight		465825
Flatlight-Spot-d82	stainless steel-Look	natural/warm	IP54	465801
Flatlight-Spot-d82	stainless steel-Look	daylight	IP54	465806
Flatlight-Spot-d82	white	natural/warm	IP54	465811
Flatlight-Spot-d82	white	daylight	IP54	465816
Flatlight-Spot-d82	gold	natural/warm	IP54	465821
Flatlight-Spot-d82	gold	daylight	IP54	465826

optional

Power Units	Article-No.
Power Unit C20 für 1-2 Spots	465610
Power unit C60 N-extern for 1-6 spots + dimmer + input for emergency power supply 16-24 V/3 W	465510
emergency power supply NSG, In 230 V, Out 24V DC, capacity 1.2 Ah	465511

Accessories	Article-No.
Additional intermediate cable 1.7 m	465551

Fitting into standard 68 mm dia. openings (generally required for IP54) also 12-60 mm dia. for retrofitting

*Energy efficiency class. With the LED flatlight series one can achieve energy efficiency class A for ones lift system.

Required number of lamps conform to EN 81-1/2
2 natural spots up to 1 m² for stainless steel cabs and longest side 1 m, ceiling height up to 2.2 m
Recommendation:
4 spots / 1.5 m²
6 spots / 2.0 m²

LED - LIGHT WITHOUT HEAT

stainless steel ceiling with LED Flatlight Spot d82

Very brightly cab, even in the upper area, thanks to homogenous LED lighting fields

White aluminium ceiling with LED Flatlight Spot d82

FEATURES:

- Solid metal casing, surface design stainless steel satin-finished, white or gold
- 3 W homogenous LED light field without dazzling light spots
- Limited scratch, impact and fire resiastance thanks to 3 mm satin finished glass pane
- Protected against theft by a newly developed installation bracket with hidden allen screws in the frame
- Connection cable plug-and-socket system including 1.7 m intermediate cable
- Lamps and spots are replaceable from inside the cabin

HENNING LED:
VISIONS, EXPERTISE AND DESIGN COME TOGETHER!

Shipcanal lift Henrichenburg

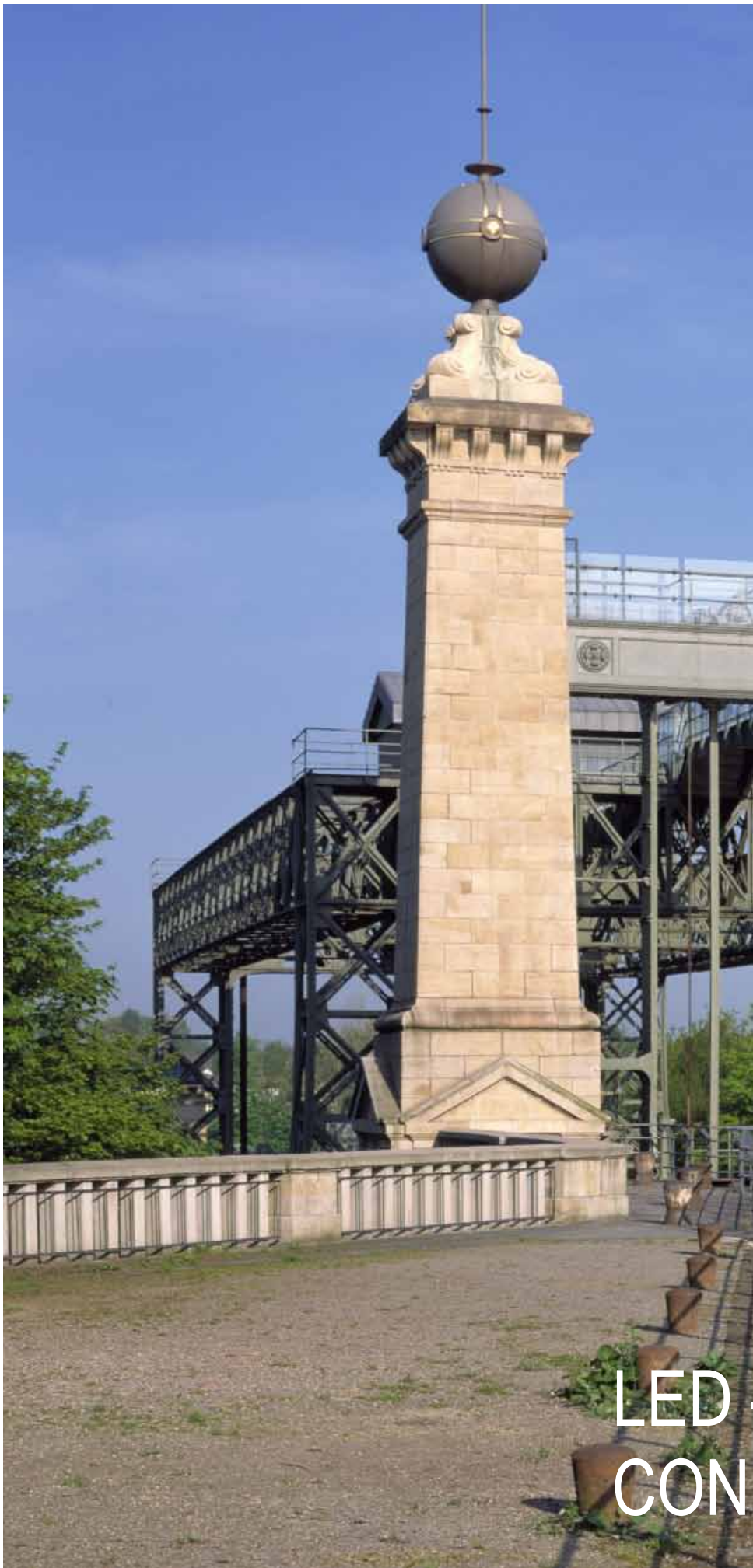
LED - Designed safety in shipping

„ ship ahoy“ with LED Lighting.

LED technology illuminates the Shipcanal lift Henrichenburg. The exchange of conventional lighting with modern LED spotlight has occurred. Here too resulting in a saving of many tons of CO^2 emission per year. There are also a number of other buildings in which the new illumination technology uses significantly less power and reduces maintenance costs, because of their longer life.

Many of these changes are hardly visible to the visitors of the ship lift, because they were carried out within surrounding buildings.

But the lighting of the ship canal lift Henrichenburg at night is unmistakable.



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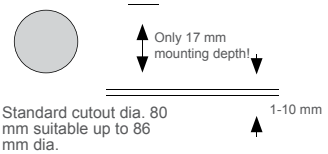
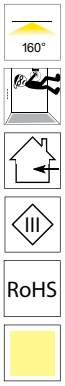
- SUFFICIENT LIGHT AT LOW POWER
SUMPTION

LED-Flatlight-Spot q90

Homogenous square spot for exclusive lift systems



Type	Enclosure colour	Light colour	Article-No.
Flatllght-Spot-q90	stainless steel-Look	natural/warm	465900
Flatllght-Spot-q90	stainless steel-Look	daylight	465905
Flatllght-Spot-q90	white	natural/warm	465910
Flatllght-Spot-q90	white	daylight	465915
Flatllght-Spot-q90	gold	natural/warm	465920
Flatllght-Spot-q90	gold	daylight	465925



Power unit	Article-No.
Power unit C20 for 1-2 spots	465610
Power unit C60 N-extern for 1-6 spots + dimmer + input for emergency power supply 16-24 V/3 W	465510
emergency power supply NSG, In 230 V, Out 24V DC, capacity 1.2 Ah	465511

Accessories	Article-No.
Additional intermediate cable 1.7 m	465551

*Energy efficiency class. With the LED flatlight series one can achieve energy efficiency class A for ones lift system.

Required number of lamps conform to EN81-1/2
2 natural spots up to 1 m² for stainless steel cabs and longest side 1 m, ceiling height up to 2.2 m
Recommendation:
4 spots / 1.5 m²
6 spots / 2.0 m²

stainless steel ceiling ceiling with LED Flatlight Spot q90

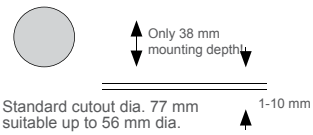
FEATURES:

- solid metal casing, surface design stainless steel satin finished, white or gold
- 3 W homogenous LED light field without dazzling light spots
- Limited scratch, impact and fire resistance thanks to 3 mm satin finished glass pane
- Protected against theft by a newly developed installation bracket with hidden allen screws in the fram
- Connection cable plug-and-socket system including 1.7 m intermediate cable
- Lamps and spots are replaceable from the cabin

4

LED Spot d77

Circle Spot for exclusive lifts



Type	Design		Article-No.
LED Spot aluminium d77	aluminium/natural anodized		465000
LED Spot aluminium d77	aluminium/natural anodized	prot. against vandalism	465005
LED Spot chromium-plated d77	aluminium/ chromium-plated		465100
LED Spot chromium-plated d77	aluminium/ chromium-plated	prot. against vandalism	465105
LED Spot Stainless steel d77	Stainless steel		465200
LED Spot Stainless steel d77	Stainless steel	prot. against vandalism	465205

Power unit	Design	Article-No.
LED power unit	max. 10 spots	465600
LED power unit with integrated emergency-lighting function	max. 12 spots	465500

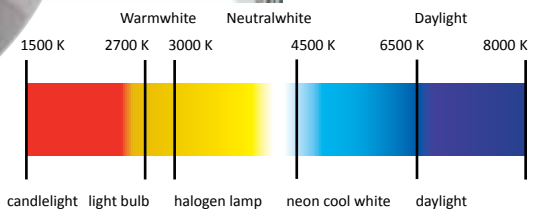
Accessories	Article-No.
Additional intermediate cable 5 m	465502

*Energy efficiency class. With the LED flatlight series one can achieve energy efficiency class A for ones lift system.

Required number of lamps conform to EN81-1/2
2 natural spots up to 1 m^2 for stainless steel cabs and longest side 1 m, ceiling height up to 2.2 m
Recommendation:
4 spots / 1.5 m^2
6 spots / 2.0 m^2

ILLUMINATION TECHNOLOGY

INTEGRATED EMERGENCY LIGHTING & SMART CONNECTION TECHNOLOGY



FEATURES:

- 5 high-performance LEDs per spot
- Time-saving insulationpiercing connection system
- Integrated emergency lighting function
- High-quality design as standard
- Category 2 protection against vandalism (optional)
- High energy efficiency: 6,5 W emergency lighting function, 1,3 W emergency lighting function
- light colour natural/warm, 4000 K,

HENNING POWER UNITS YOUR BENEFITS:

- Easy integration with plug-and-play technology
- High flexibility by power supplies for each system
- power supply units for different supply voltage for global use
- Wide range of LED´s
- Certified quality

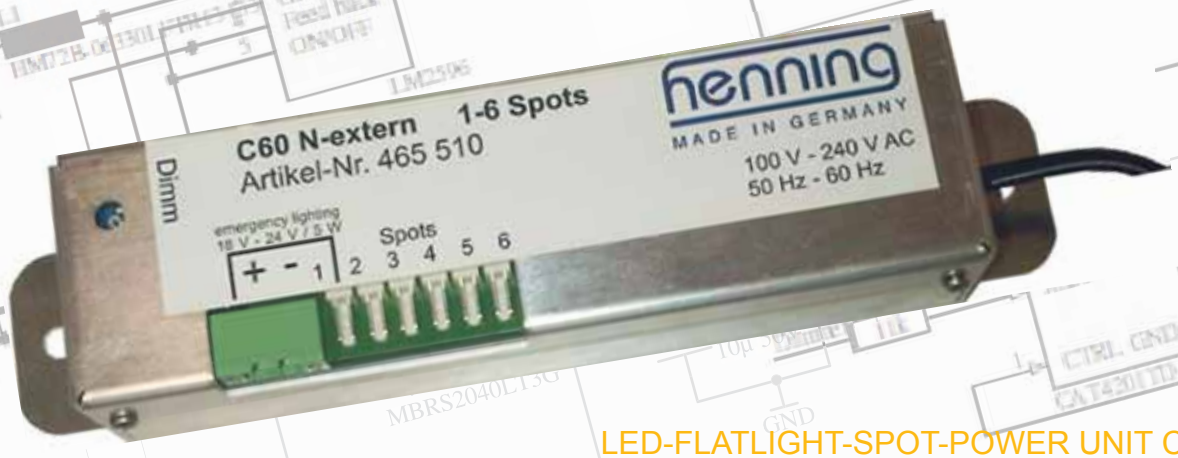
for 2 spots

Suitable for flatlight spots d60 + d82 + q90

LED-FLATLIGHT-SPOT POWER SUPPLY C20

- Mini power unit 120 x 35 x 20 mm
  100 – 240 V AC / 176 – 264 V DC / 240 mA / 7W
  current controlled, short-circuit-proof
  for controlling 1-2 LED flatlight spots in series,
  should individual LEDs fail inside one spot, the other spots continue to function.
- Pluggable spot connections
- High energy efficiency and long life span
- CE, EMC tested, Made in EU

Type	Article-No.
Power Unit C20	465610



for up to 6 spots

optionally with input for external emergency lighting supply

Suitable for flatlight spots d60 + d82 + q90

LED-FLATLIGHT-SPOT-POWER UNIT C60

- Compact unit 170 x 54 x 52 mm
- Internal power unit 100-240 V AC/24 V DC, short-circuit proof, capacity 1,2 Ah
- 6 parallel individual short-circuit-proof current controllers for controlling 1-6 LED flatlight spots, all cable output are pluggable
- Infinitely variable dimmer
- Internal LED display for power unit function
- Minimum power consumption

Additional function power unit C60 N-extern

- Automatic change-over of a flatlight spot to emergency lighting operation should supply voltage fail, required external supply 15-24 V/3 W

Type	Article-No.
Power unit C60 N-extern for 1-6 spots + dimmer + port for emergency power supply 16-24 V/3 W	465510
emergency power supply NSG, In 230 V, Out 24V DC	465511

LED-FLATLIGHT SPOT POWER UNIT

Optimized for the operation of Henning LED spots. High energy efficiency. Safe operation requiring no maintenance.

Type	Design	Article-No.
LED power unit	max. 10 spots	465600

Feature	10 Spots
performance	60 W adequate for up to 10 spots
Supply voltage	220 V - 240 V AC
Input frequency	50 Hz - 60 Hz
Efficiency	85%
Type of protection	IP 40
Dimensions LxWxH	173 x 76,5 x 30,5 mm

for1-10 spots

Suitable for LED-spots d77

ECO

LED FLATLIGHT SPOT POWER UNIT WITH EMERGENCY LIGHTING OPERATION

Optimized for the operation of Henning LED spots. High energy efficiency. Safe operation requiring no maintenance.

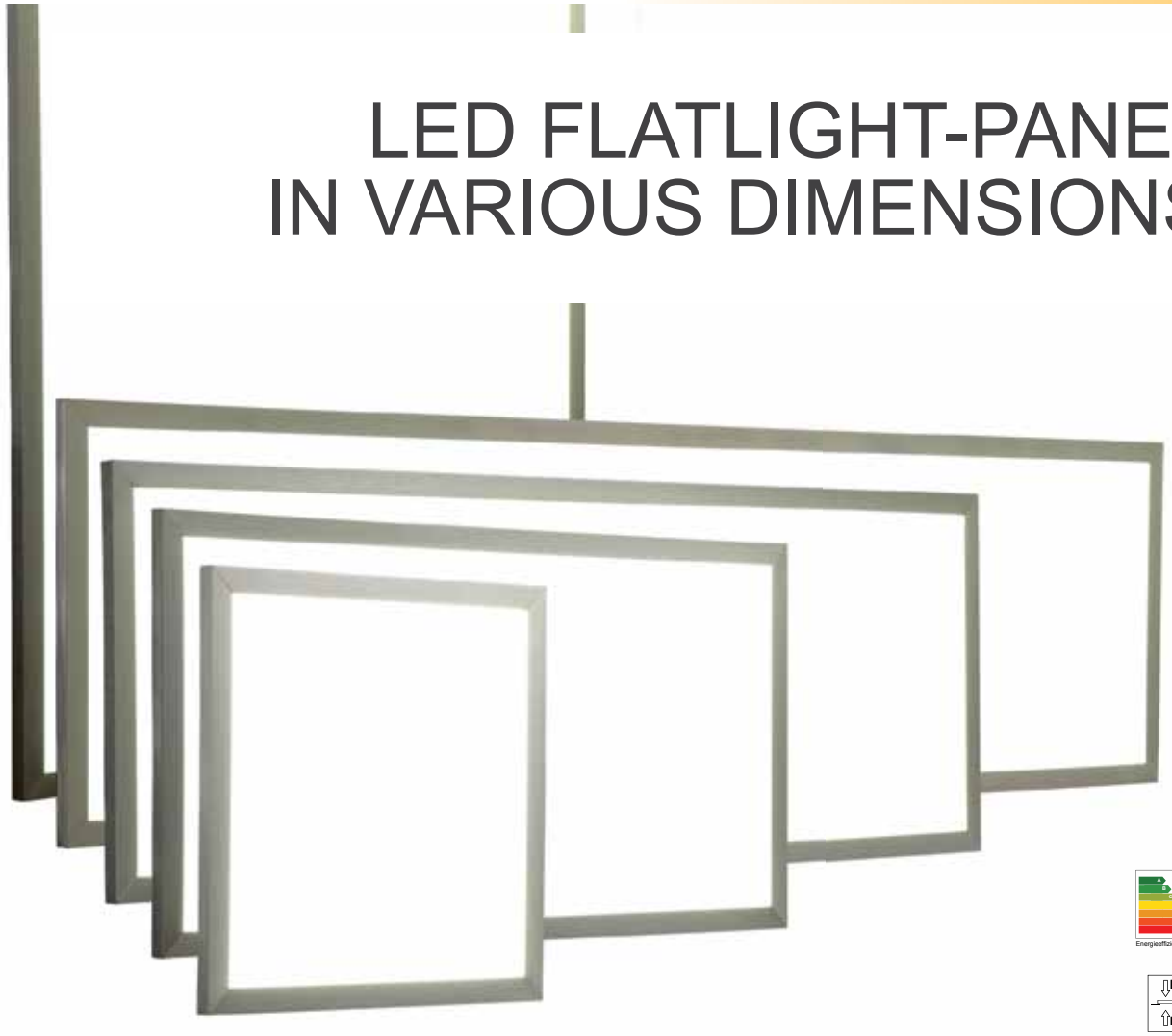
Type	Design	Article-No.
LED power unit	max. 12 spots	465500

Feature	10 spots
performance	75W, adequate for up to 10 spots
Supply voltage	88 V - 240 V AC/125 V-373 V DC
Input frequency	47 Hz - 63 Hz
Efficiency	88,5%
Type of protection	IP 53
Dimensions LxWxH	1240 x 160 x 90 mm
Special features	Automatic change-over from normal to emergency lighting operation. Temperature-controlled charging circuit for optimum battery-availability. Port for forced cabin lighting shutdown (i.e. for LightWatcher), overcharging protection, deep discharge protection

for 1-12 spots

Suitable for LED-spots d77

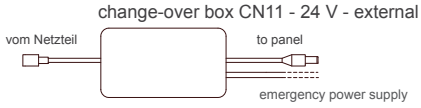
LED FLATLIGHT-PANEL IN VARIOUS DIMENSIONS



Type		Article-No.
Flatlight-Panel 296 x 296	natural	466030
Flatlight-Panel 296 x 296	daylight	466040
Flatlight-Panel 396 x 396	natural	466041
Flatlight-Panel 436 x 436	natural	466042
Flatlight-Panel 436 x 436	daylight	466043
Flatlight-Panel 596 x 296	natural	466060
Flatlight-Panel 596 x 296	daylight	466070
Flatlight-Panel 896 x 296	natural	466090
Flatlight-Panel 1196 x 296	natural	466120
Flatlight-Panel 596 x 596	natural	466366
Flatlight-Panel 1196 x 596	natural	466326

Accessories		Article-No.
Panel-Dimmer	Dimmer with rotary button and additional remote control suitable for all panel types	466010
CN11-24 V-external	Change-over box for the emergency lighting operation in case of power failure, external supply 18-30 V/5 W suitable for all panels	466015

*With the LED flatlight series one can achieve energy efficiency class A for ones lift system.



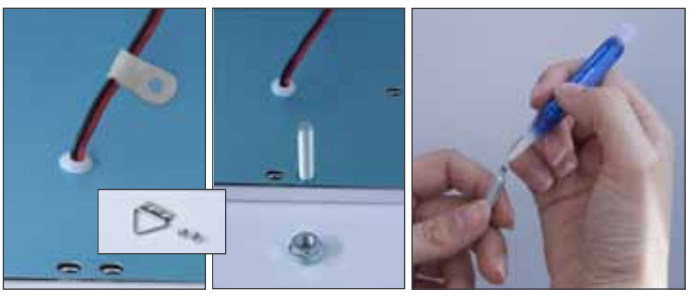
Augusta hospital Bochum parking garage

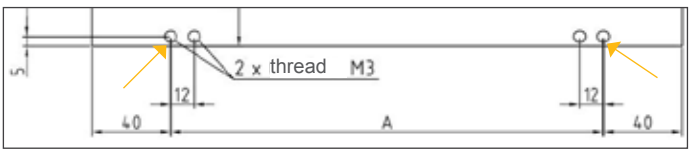
FEATURES:

- Extremely homogenous, high-intensity light field
- Bright cabin lighting even in the upper area thanks to wide radiation angle
- Panel thickness only 15 mm
- High energy efficiency and extremely long life span
- Including power unit 100-240 V, 50-60 Hz

Mounting Sets

Type		Article-No.
Flatlight-Panel	296 x 296	466211
Flatlight-Panel	396 x 396	466211
Flatlight-Panel	436 x 436	466211
Flatlight-Panel	596 x 296	466211
Flatlight-Panel	596 x 596	466211





Frameless Panel Mountings

Best panel protection for your lift application

In order to maintain the extremely long life span of the LED panels, all panel mounting kits are supplied with protective panes.
Also ideal for folding-type false ceilings with a space between false ceiling and normal ceiling from 28 mm upward.

stainless steel ceiling with frameless panel mountings

Attention! Can only be mounted from the cab top ceiling!

Frameless ceiling mounting kit consisting of:

mounting bracket, set of screws, polycarbonate pane, alternatively with safety glass pane,scratch, impact and fi re resistance, according to EN 81-71 category 1.

ASSEMBLY

The brackets are attached to the cab ceiling using a glue or special adhesive tapes. We will assist you with the choice of the adequate bonding mode and with instructions on how to mount the brackets to cabin ceilings that are safe to walk on. The brackets are provided with holes for an optional attachment using welding pins.

For goods we recommend to cover the panels with a polycarbonate pane!using welding pins.

IP40
IP54
optionally

Type	with 10 mm safety glass panel	Article-No.
Frameless ceiling mounting kit for panel	300 x 300	466031
Frameless ceiling mounting kit for panel	600 x 300	466061
Frameless ceiling mounting kit for panel	900 x 300	466091
Frameless ceiling mounting kit for panel	1200 x 300	466121
Frameless ceiling mounting kit for panel	600 x 600	466161
Frameless ceiling mounting kit for panel	1200 x 600	466162

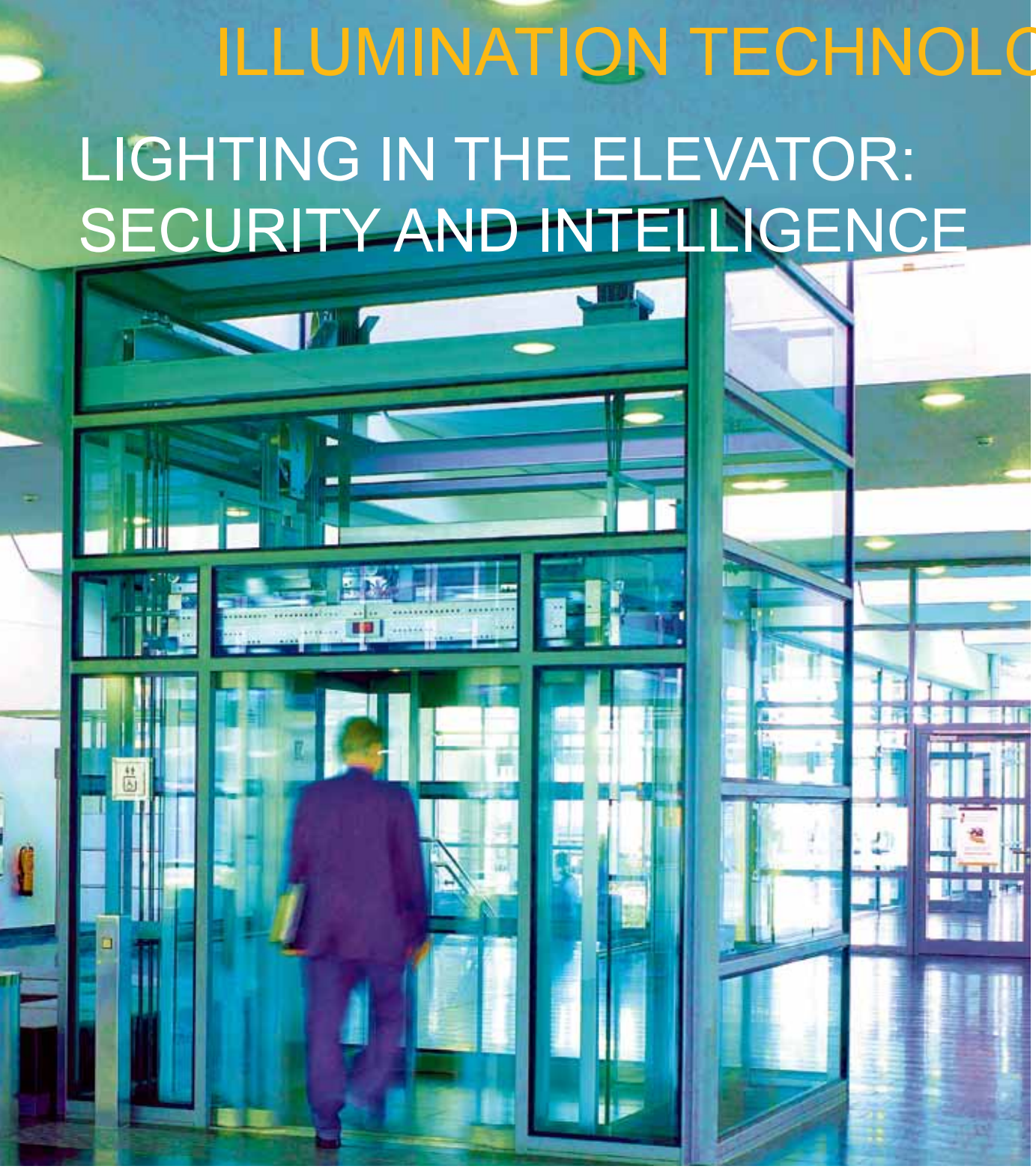
Mounting depth with mounting-bracket only 26 mm with cover 50 mm

Ceiling cutouts
246 x 246 1140 x 245
543 x 243 546 x 546
846 x 246 1140 x 545

*With the LED flatlight series one can achieve energy efficiency class A
for ones lift system.

Type	with 4 mm safety glass panel	Article-No.
Frameless ceiling mounting kit for panel	300 x 300	466038
Frameless ceiling mounting kit for panel	600 x 300	466068
Frameless ceiling mounting kit for panel	900 x 300	466098
Frameless ceiling mounting kit for panel	1200 x 300	466128

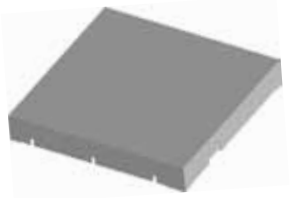
LIGHTING IN THE ELEVATOR: SECURITY AND INTELLIGENCE



Frameless ceiling mounting kit category 2 protection against vandalism, scope of supply identical to frameless ceiling mounting kit category 2 protection against vandalism but with additional 10 mm chemically hardened safety glass pane.

Type	with 10 mm safety glass pane	Article-No.
Frameless ceiling mounting kit for panel 300 x 300		466032

The brackets are attached to the cab ceiling as with normal kits. Further technical information is provided on request.



Step-proof hood for splash protection

Cover for LED fl atlight panels 50 mm high, galvanized, suitable for all panes / Mounting Kits. The hood also protects the panel against splash water from above.

Type		Article-No.
Panel cover for size	300 x 300	466033
Panel cover for size	600 x 300	466063
Panel cover for size	900 x 300	466093
Panel cover for size	1200 x 300	466123

The LED panels with projecting attachments are not suitable for cab ceilings that are permanently or regularly exposed to extreme moisture or are installed outdoors

PANEL MOUNTING FRAME

Best panel protection with mounting frame for goods lifts, car lifts and lifts operated in areas liable to vandalism.

stainless steel ceiling - panel with frame

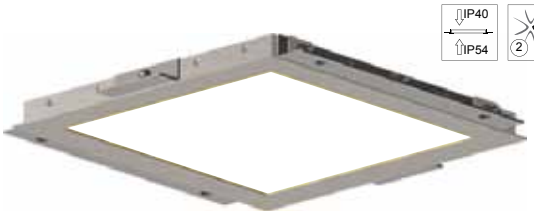
Mounting kit for panel 300 x 300 mm	Stainless steel satinframe finish	Primed stainless steel frame finish
Polycarbonate pane 4 mm	Art.-No. 466034	Art.-No.466035
ESG-Safety glass pane 4 mm	Art.-No. 466036	Art.-No.466037

Mounting kit for panel 600 x 300 mm	Stainless steel satinframe finish	Primed stainless steel frame finish
Polycarbonate pane 4 mm	Art.-No. 466064	Art.-No.466065
ESG-Safety glass pane 4 mm	Art.-No. 466066	Art.-No.466067

Mounting kit for panel 900 x 300 mm	Stainless steel satinframe finish	Primed stainless steel frame finish
Polycarbonate pane 4 mm	Art.-No. 466094	Art.-No.466095
ESG-Safety glass pane 4 mm	Art.-No. 466096	Art.-No.466097

Mounting kit for panel 1200 x 300 mm	Stainless steel satinframe finish	Primed stainless steel frame finish
Polycarbonate pane 4 mm	Art.-No. 466124	Art.-No.466125
ESG-Safety glass pane	Art.-No. 466126	Art.-No.466127

EN81-71 category 2

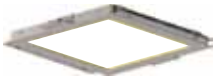


Mounting kit with extremely strong 2 mm mounting frame,accurately machined, no visible part without weld seams, satined or primed stainless steel holding and protecting the LED panel, incl. polycarbonate pane, optionally also with safety pane which protects against scratching, impact and fi re according to EN81-71 category 1. A clamping system allows frames to be quickly fi tted.

DESIGN FOR

Vandalism-proof mounting kit conform to EN81-71 category 2.
Mounting kit with stainless steel or primed frame for LED panels. Designed like frame mounting kit but with 10 mm safety glass pane.

*With the LED flatlight series one can achieve energy efficiency class A for ones lift system.



Step-proof protective hood

Cover for LED flatlight panels 53 mm high, galvanized, suitable for all panes / Mounting Kits.The hood also protects the panel against splash water from above.

ILLUMINATION TECHNOLOGY

EN81-71 category 2

Vandalism-proof mounting kit according to EN81-71 category 2.
Mounting kit with stainless steel or primed frame for LED panels. Designed like frame mounting kit but with 10 mm safety glass pane.

Type	with 10 mm safety glass pane	Article-No.
Stainless steel frame mounting kit for panel	300 x 300	466136
Mounting kit with primed frame for panel	300 x 300	466137

Cover for LED flatlight panels 53 mm high, galvanized, suitable for all panes / Mounting Kits.The hood also protects the panel against splash water from above.

Type	Article-No.
Panel cover for panel 300 x 300	466033
Panel cover for panel 600 x 300	466063
Panel cover for panel 900 x 300	466093
Panel cover for panel 1200 x 300	466123

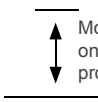
SOLUTIONS EASY INSTALLATION

For goods lifts it is recommended to cover the panels with a polycarbonate pane.

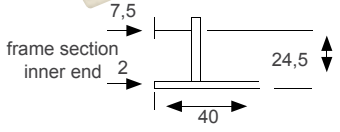
The LED panels with projecting attachments are not suitable for cabin ceilings that are permanently or regularly exposed to extreme moisture or are installed outdoors.

Required ceiling cutouts

317 x 317
614 x 314
917 x 317
1217 x 317



Mounting depth with attachment kit only 28 mm, 30 mm for category 2 vandalism protection, with cover 53 mm



COMPLETE PANEL

stainless steel ceiling complete panel

COMPLETE PANEL – CAN BE MOUNTED BY A SINGLE TECHNICIAN

FEATURES

- Extremely homogenous, high-intensity light field
- Bright cabin lighting even in the upper area due to wide radiation angle
- Elegant stainless steel casing only 30 mm high
- Including polycarbonate pane
- Article-No.466000 and 466005 has limited scratch, impact and fire resistance thanks to 3 mm tempered safety glass pane
- Installation using two unobtrusive and hardly accessible grub screws (on side of frame)
- Can be mounted by a single technician, ideal also for retrofitting
- LED panel replaceable from the cabin.
- Including power unit 100-240 V, 50-60 Hz

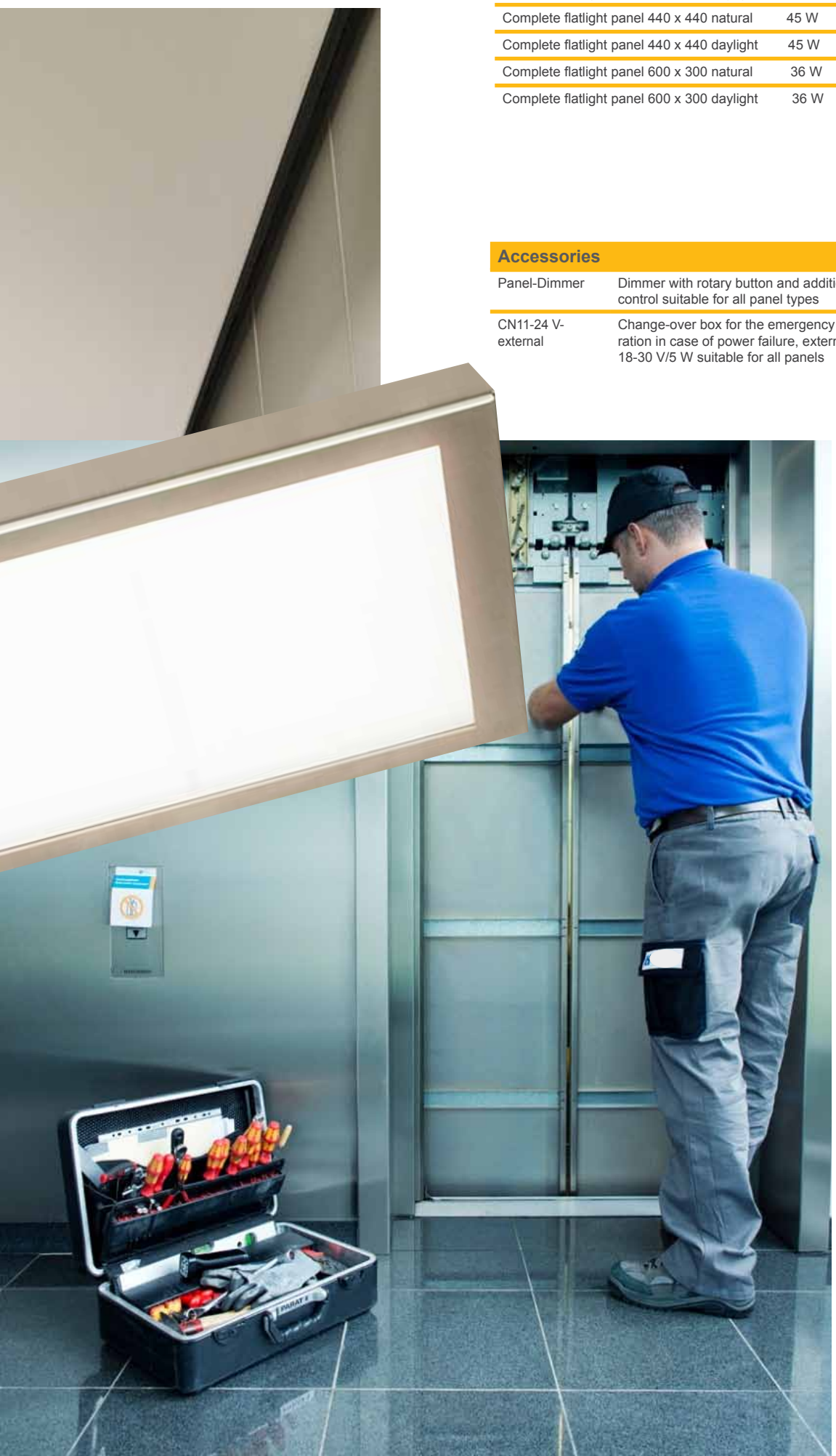
Power unit and current controller are located on the cabin roof.

Required number of lamps according to EN81-1/2 at the time this catalogue is printed:
one panel 300 x 300 for stainless steel cab up to 1.8 m2 with longest side 1.5 m and 2.2 m ceiling height

*With the LED flatlight series one can achieve energy efficiency class A for ones lift system.

Type		Article-No.
Complete flatlight panel 300 x 300 natural	19 W	466000
Complete flatlight panel 300 x 300 daylight	19 W	466005
Complete flatlight panel 440 x 440 natural	45 W	466002
Complete flatlight panel 440 x 440 daylight	45 W	466007
Complete flatlight panel 600 x 300 natural	36 W	466004
Complete flatlight panel 600 x 300 daylight	36 W	466009

Accessories		Article-No.
Panel-Dimmer	Dimmer with rotary button and additional remote control suitable for all panel types	466010
CN11-24 V-external	Change-over box for the emergency lighting operation in case of power failure, external supply 18-30 V/5 W suitable for all panels	466015



LANDING LIGHTING

Type	Article-No.
LED luminary 0.8 W/10-24 V	465300

Suitable power unit	Article-No.
LED power unit 100-240 V DC with 1 m supply cable suitable for 1-16 luminaries	465620

Suitable shaft cables	Article-No.
Supply cable 2 x 0.34 mm2, please indicate required length of cable	465621
Intermediate cable 3 m, pluggable	465653
Intermediate cable 1 m, pluggable	465651
Double distributor, pluggable	465650

LUMINARY ONLY 46 MM IN DIA. WITH MAGNETIC LOCKING RETAINER WITHOUT VISIBLE SCREWS, EXTREMELY WELL PROTECTED AGAINST THEFT.

FEATURES

- Bright, warm light
- 0.8 W power consumption only
- Elegant and accurately maschined stainless steel casing
- Mounting using magnetic locking retainer
- Luminary replaceable from the outside also in case of door frames inaccessible from the rear
- Pluggable connection cable 5 cm with LED driver in mini casing
- 50,000 h life span acc. to HStAn

*With the LED flatlight series one can achieve energy efficiency class A for ones lift system.

Type	Article-No.
LED door case luminary 0.8 W/10-24 V	465310

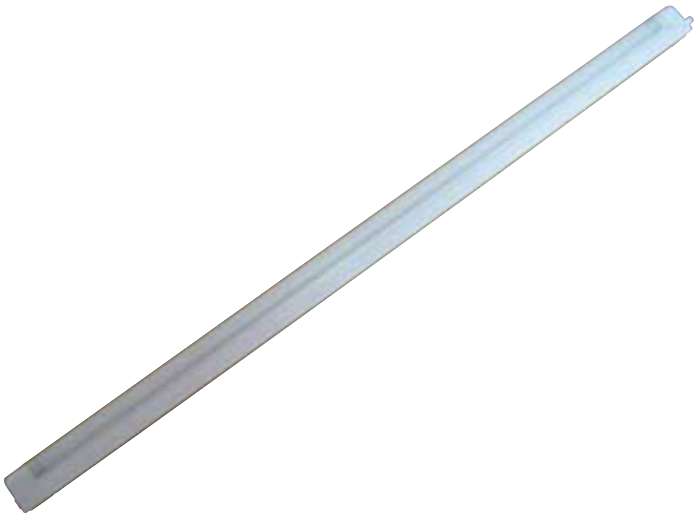
Suitable power unit	Article-No.
LED power unit 100-240 V DC with 1 m supply cable suitable for 1-16 luminaries	465620

Suitable shaft cables	Article-No.
Supply cable 2 x 0.34 mm2, please indicate required length of cable	465621
Intermediate cable 3 m, pluggable	465653
Intermediate cable 1 m, pluggable	465651
Double distributor, pluggable	465650

DOOR FRAME LUMINARY, ELEGANT AND DELIGHT DESIGN, BRIGHT, WARM LIGHT > 120 LUX ON THE FLOOR

FEATURES

- Bright, warm light
- Only 0.8 W power consumption
- Elegant and accurately maschined stainless steel casing
- Mounting using magnetic locking retainer
- Luminary replaceable from the outside also in case of door frames inaccessible from the rear
- Pluggable connection cable 5 cm with LED driver in mini casing



Shaft Illumination

Technical Characteristics:

- Fluorescent lamps construction type T5, capacity 21W only, very low consumption
- Covered against mechanical impact
- Suitable for horizontal lift shaft sections 2,5m x 2m, for bigger horizontal sections either distance between lamps is to be reduced or a second shaft illumination circuit to be installed
- Electronic ballast, no starter required
- Weight: 380 g IPS only
- Immediate start without flicker and without strobe light effect
- Quick and easy installation
- Earthed, two wire cable
- Kit includes 10 m mains line as well as connecting lines
- Dimensions (L x H x W) 920 x 24 x 42 mm

Type	number of lights	Article-No.
Strip Light 21 W, Incl. connecting line and mounting plates		337000
Mains cable 10 m, with Euro-plug		337010
Shaft Illumination Kit for shafts of up to 6,8 m height	3	337100
Shaft Illumination Kit for shafts of up to 9,7 m height	4	337110
Shaft Illumination Kit for shafts of up to 12,6 m height	5	337120
Shaft Illumination Kit for shafts of up to 15,5 m height	6	337130
Shaft Illumination Kit for shafts of up to 18,4 m height	7	337140
Shaft Illumination Kit for shafts of up to 21,3 m height	8	337150
Shaft Illumination Kit for shafts of up to 24,2 m height	9	337160
Shaft Illumination Kit for shafts of up to 27,1 m height	10	337170
Shaft Illumination Kit for shafts of up to 30,0 m height	11	337180
Shaft Illumination Kit for shafts of up to 32,9 m height	12	337190

Strip Light, Black

Technical Characteristics:

- Black casing, ideal for illuminating shafts of glass elevators
- Capacity 1 x 36 W
- Dimensions (L x H x W) 1290 x 35 x 61 mm
- Cable H05VV-F 3G1,5 mm² firmly connected
- Cable length 2 x 1,15 m with 3-pole plug / connector
- Equipped with mounting bracket

Type	Article-No.
Lichtleiste schwarz	337050
Zuleitung 10 m	337055

LIGHTWatcher

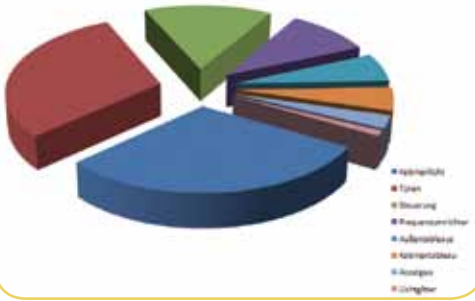
Since the EU directive 2002/91/EG was published, energy efficiency is in the focus of building engineering and management experts. With the publication of VDI 4707 in March 2009 this issue is also of topical interest for lift systems. Today systems and plants which are part of the building inventory are considered to consume large amounts of energy. In lift systems this consumption can mostly be put down to the lift car lighting system.
The LIGHTwatcher allows you to simply turn off the lift car lights when these are not needed without a major installation expenditure, new cables or control system modifications being necessary.

Operation of the LightWatcher:

The LIGHTwatcher is installed directly on top of the lift car roof allowing lift car movements to be detected by the three integrated acceleration sensors. The sensors are so sensitive that they even identify movement of the lift car doors.
The lift car lights are turned on as soon as a movement is detected inside the lift car. The switching threshold for the detection of movements is directly set on the LIGHTwatcher.
Upon expiry of a time span adjusted by you, the lights are turned off again when no further movements of the lift car and doors are detected.
The installation of the unit requires the electric lighting circuit to be opened and the LIGHTwatcher to be inserted. Since the unit is powered by the electrical lighting circuit, no extra cables are needed.
Apart from the car lights the LIGHTwatcher can turn off another consumer.
An additional third contact is provided which in the energy saving mode connects another consumer e.g. activating the emergency light instead of the regular lift car lights.
Three potential-free inputs are available for special applications requiring other sensors than the acceleration sensors to activate the lights.

- Event-controlled cutout of lights when the lift is stationary
- Minimisation of the stationary demand conform to VDI 4707
- Independent detection of lift car and door movements
- There is no need to tamper with the lift system electronics
- Simple installation directly in the electrical lighting circuit
- Cutout behaviour can be influenced via control inputs
- Suitable for being attached to tophat rails and walls

What shares in the energy consumption of a lift at a standstill?



Highlights of the LightWatcher:

Supply voltage	230 V AC/optionally 110V AC
Power input	2 VA
Relay outputs	3
Cutout delay	1 - 10 min
Max. switching voltage	250 V AC
Max. making current	15 A
Max. permanent current	10 A
Max. switching capacity	(ohmic) 2500 VA
Max. switching capacity	(ind.) 500 VA
Min. switching load	0.3 W
Additional control inputs	3
Control voltage	12 V - 230 V AC/DC
L x W x H (mm)	106 x 90 x 58

OPTIONAL ACCESSORIES: INSTALLATION KIT:

- 1 x tophat rail
- 3 x pan-head tapping screws with cross recession
- 6 x standard light clamps

Type	Article-No.
LIGHTWatcher 230 V	460000
LIGHTWatcher 110 V	460000-110
Installationskit for LIGHTWatcher	460100

Casing – LightWatcher

TECHNICAL DATA:

Type of protection	IP 65
Material	Thermoplast
Colour	grey RAL 7035, wall-side for cable lead-in
Cable lead-in	max. M 40

Type	Article-No.
Casing LightWatcher	455020

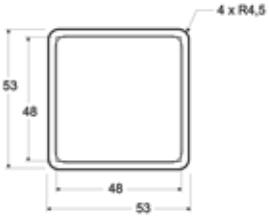
5

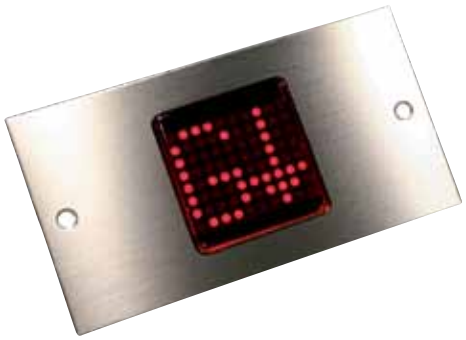
CABIN EQUIPMENT

5.0
LANDING INDICATOR

VV3 Landing Indicator red / blue

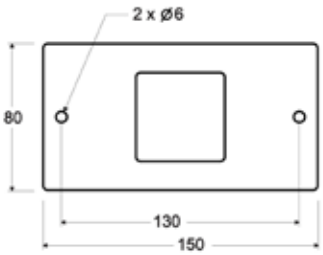
- Indicates landings, shows direction arrows and changing text messages
- To be installed in the cabin or on landings
- Easy programming by keys on the back or by means of the SafeLine Pro Software
- Text messages “Overload“, „maintenance“ and „Out of order“ can be changed to user defined massages by means of SafeLine Pro Software
- Integrated signal for connection to a separate loudspeaker
- Input signals: BCD-code, Gray-code or decimal code
- Quick and easy installation by click-on mechanism to the frontplate or the installation frame
- Dimensions H x W x D: 53 x 53 x 32 mm
- Installation plate and loudspeaker is not included.
  Standard colours red + blue,
  yellow + green are available by special order

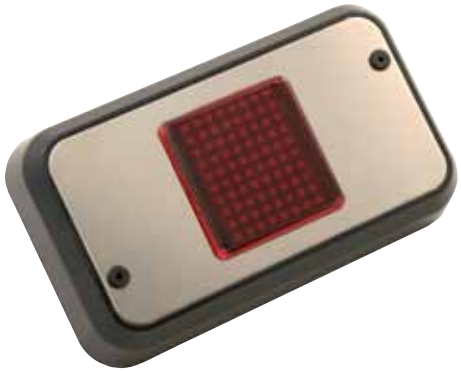




VV3 Frontplate

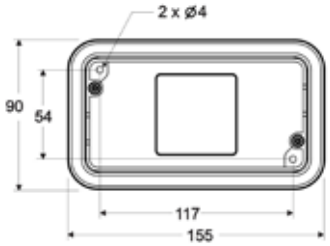
- Dimensions H x W: 150 x 80 mm
- Distance between notches: 130 mm
- Material: stainless steel satined
- Recess suitable for VV3





VV3 Frame For surface Mounting

- Elevated frame with frontplate made from stainless steel.
- Recess suitable for VV3 (48 x 48 mm).
- Dimensions H x W x D: 150 x 90 x 28 mm.



Type	Article-No.
VV3 Landing indicator, red	337300
VV3 Landing indicator, blue	337301
VV3 Frame for surface mounting	337302
VV3 Frontplate for flush mounting	337303
VV3 Loudspeaker for door signal, for retrofitting	337304
VV3 Programming cable 2 m, serial	337305
Adapter, serial / UBS	337314

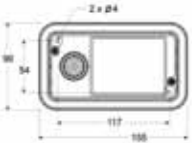
FD4 Landing Indicator & Voice Announcement red / blue

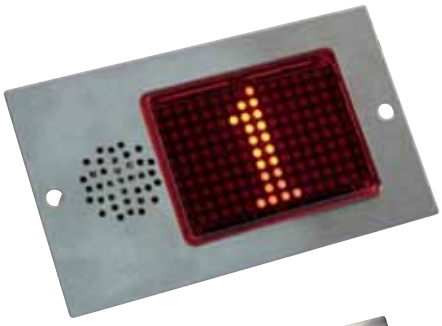
- Landing indicator with integrated voice announcement 60 seconds total playing time, provided that regular wave - files are utiliced
- Indicates landing, shows direction arrows and changing text messages
- To be easily programmed by keys on the back or by means of SafeLine Pro Software
- Text messages and voice announcements can be changed to user-defined messages by SafeLine Pro Software
- Integrated arrival signal according EN81-70, for connection to a separate loudspeaker
- Quick and easy installation by click-on mechanism to the frontplate or the installation frame
- Dimensions H x W x D: 61 x 80 x 29 mm
- Installation plate and loudspeaker not included in delivery.
  Standard colours red + blue, yellow + green are available by special order

Unit with loudspeaker for superimposed wall-mounting

Dimensions	H x W: 155 x 90 mm
Distance between notches:	117 mm
Material:	stainless steel brushed

Recess suitable for FD4

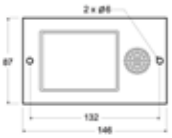




Unit with loudspeaker for flush mounting

Dimensions	H x W: 146 x 87 mm
Distance between notches:	139 mm
Material:	stainless steel brushed

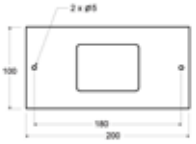
Recess suitable for FD4



FD4 Frontplate for flush mounting

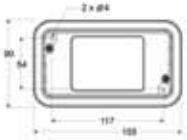
Dimensions	H x W: 180 x 100 mm
Distance between notches:	180 mm
Material:	stainless steel brushed

Recess suitable for FD4



FD4 Frame for surface-mounting

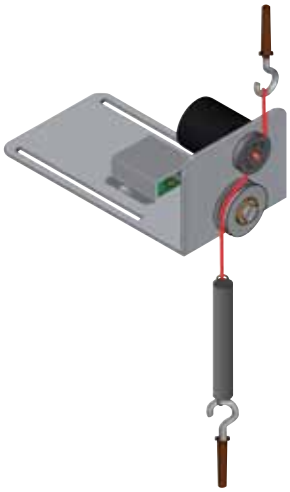
Cranked frame with plate made from stainless steel.
Recess suitable for FD4.
Dimensions H x W x D: 150 x 90 x 28 mm.



Type	Article-No.
FD4 Landing indicator, red	337505
FD4 Landing indicator, blue	337506
FD4 Frame for surface mounting	337308
FD4 Frontplate, for flush mounting	337309
FD4 Unit with loudspeaker for flush mounting, red	337500
FD4 Unit with loudspeaker for flush mounting, blue	337501
FD4 Unit with loudspeaker for surface mounting, red	337510
FD4 Unit with loudspeaker for surface mounting, blue	337511
FD4 Programming cable 2 m, serial	337305

5.1

ENCODER PG1



Encoder PG1 For Landing Indicator FD4

Compliant EN81-70.
Installation time is less than one (1) hour.

- Stand-alone system does not depend on the existing elevator control
- No cores of the travelling are cable required

Scope Of Supply:

- Encoder PG1
- Kevlar-cord 30 m
- Tensioning device

Technical Characteristics

Supply voltage	24 VDC
Dimensions H x W x D	80 x 100 x 190 mm

Type	Article-No.
Encoder PG1	337520
Extra Kevlar-cord (price per meter)	337354

Emergency Lift Telephone Safeline MX 3

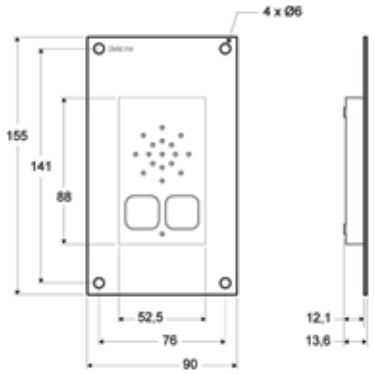
With a thickness of only 12.5 mm SafeLine MX3 is probably the world's smallest EN81-28 compatible lift emergency telephone. SafeLine MX3 has built-in background lit pictograms as well as giving the possibility to control external pictograms. It is also possible to connect an extra voice station from the LT-Stat series. External connections include pictograms, alarm button (N/O) and a hearing loop.The MX3 uses a 10-30v supply separate from the telephone line. This makes the quality of the MX3 unaffected by reductions in line quality. Test alarms can be sent to a separate telephone number on a configurable interval.Change from telephone line to GSM in minutes by using GL1, GL2 or GL6. No reconfiguration needed.

Up to nine SafeLine MX3 can share the same telephone line and still be selectively called by configuring individual unit ID numbers 1-9.

SafeLine MX3 comes with five different solutions for configuration: On site with the built-in keyboard, Remote configuration with a mobile phone, Connected to a computer running SafeLine Pro software, Remote configuration with standard analogue telephone or Remote configuration with SafeLine ProLink connected to a computer running SafeLine Pro software.

Technical Data of SafeLine™ MX 3

Voltage supply:	11 - 30 VDC.
Power consumption:	max 50 mA.
Loudspeaker:	min 0,25 W.
Dimensions H x W x D:	155 x 90 x 28 mm.



Type	Article-No.
Safeline MX3 Emergency Call Telephone with Pictogram, installation (mounting) behind cop	337326
Safeline MX3 Emergency Call Telephone with Pictogram, for flush mounting (SLMX-Rec-Pic)	337323
Safeline MX3 Emergency Call Telephone with Pictogram, for surface mounting	337327
Safeline MX3 Emergency Call Telephone with Pictogram, for flush mounting	337328
Safeline MX3 Emergency Call Telephone with Pictogram, for surface mounting	337329

Emergency Lift Telephone Safeline MX2

- All functions required integrated in one unit: telephone interface, microphone/ loudspeaker, PC-interface, pictogram, recording of spoken messages, keypad for programming
- Conforms with every requirement stipulated by the European standards EN81-28 and EN81-70
- Unit for surface mounting height 18 mm only
- Up to nine (9) SafeLine MX can be connected to one and the same telephone line
- Alarm protocols P100, CPC and Q23 for communication with many types ofemergency call centres. If required, we will check, whether the system is compatible with your emergency call centre.
- On-site recording of identification messages
- GSM-module optional

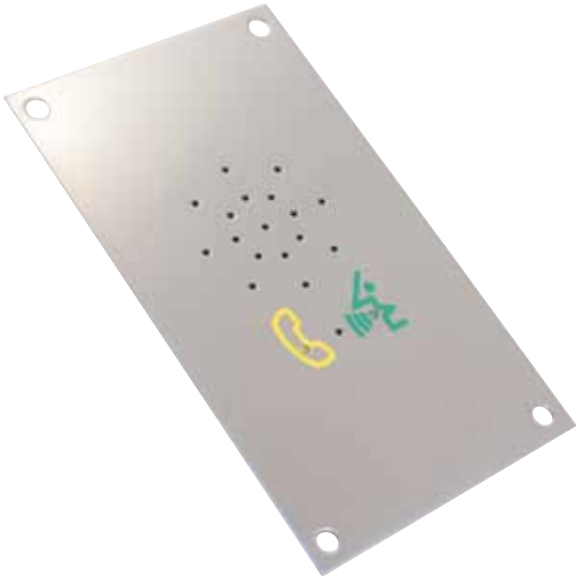
Technical Data of SafeLine™ MX:

Supply voltage:	11 - 30 VDC
Power consumption:	max. 50 mA
Loudspeaker:	min 0,25 W
Dimensions H x W x D:	130 x 78 x 18 mm

Type	Article-No.
Safeline MX2 Emergency Telephone with Pictogram, for surface mounting (SLMX-Pic)	337330

5.1

EMERGENCY LIFT TELEPHONE



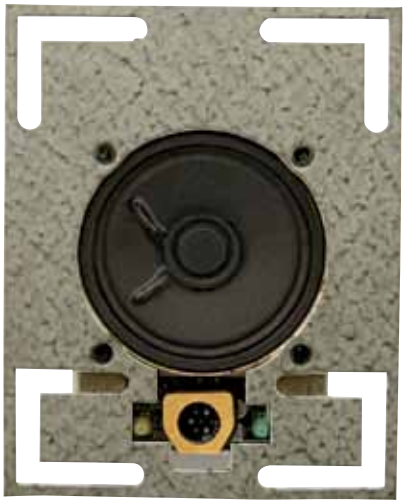
Emergency Lift Telephone MX2 (Flush Installation)

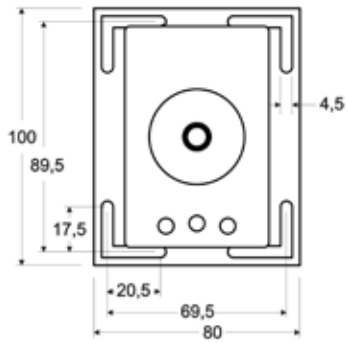
- All functions required integrated in one unit: telephone interface, microphone/ loudspeaker, PC-interface, pictogram, recording of spoken messages, keypad for programming
- Conforms with every requirement stipulated by the European standards EN81-28 and EN81-70
- Unit for flush installation; installation depth 15 mm only
- Up to nine (9) SafeLine MX2 can be connected to one and the same telephone line
- Alarm protocols P100, CPC and Q23 for communication with many types of emergency call centres. If required, we will check, whether the system is compatible with your emergency call centre.
- On-site recording of identification messages
  GSM-module optional
- Please check in advance, whether your authorities for acceptance tests will accept GSM-emergency calls.

Technical Data of SafeLine™ MX2

Voltage supply:	11 - 30 VDC.
Power consumption:	max 50 mA.
Loudspeaker:	min 0,25 W.
Dimensions H x W x D:	155 x 90 x 16 mm.

Type	Article-No.
Safeline MX2 Emergency Call Telephone with Pictogram, for flush mounting (SLMX-Rec-Pic)	337320





Emergency Lift Telephone Safeline MX2 (Rear Panel Installation)

- All functions required integrated in one unit: telephone interface, microphone/ loudspeaker, PC-interface, pictogram, recording of spoken messages, keypad for programming
- Conforms with every requirement stipulated by the European standards EN81-28 and EN81-70
- Unit for recessed installation; depth 15 mm only
- Up to nine (9) SafeLine MX² can be connected to one and the same telephone line
- Alarm protocols P100, CPC and Q23 for communication with many types of emergency call centres. If required, we will check, whether the system is compatible with your emergency call centre.
- On-site recording of identification messages
  GSM-module optional

Technical Data

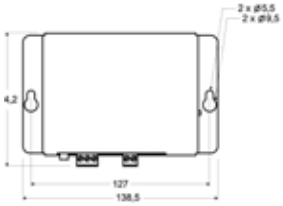
Voltage supply:	11 - 30 VDC
Power consumption:	max 50 mA
Alarm button:	can be set either as a N/O switch or as a N/C switch
Loudspeaker:	min 0,25 W
Dimensions H x W x D:	100 x 80 x 16 mm

Type	Article-No.
Emergency Call Telephone Safeline MX2, (Rear Panel Installation) (SLMX_COP)	337325

GSM-MODULE

Mobile Telephone Module GL1

- GSM-option for Safeline emercency telephones
- gerat cost savings possible in comparison to fixed phone lines, thanks to prepaid cards
- This unit can replace a fixed phone line and can be installed in the machine room, elevator shaft or on the car roof. Up to 9 elevators can be connected to one GL1 module
- Suitable for preliminary or durable installation
- Perfectly facilitates “test runs” before installing fixed phone lines
- GL1 is delivered in a rigid steel casing
- Includes a twin-band aerial with 2,5 m cable, Twin-band GSM-module (900/1800 MHz) and GPRS
- Power supply: 12 / 24 VDC
- Dimensions H x W x D: 116 x 140 x 35 mm

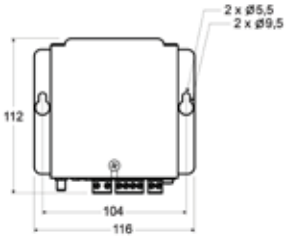


Note: although the transmission safety of stationary installed GSM units is extremely high, a transmission of emergency calls by the GSM network is not permitted by inspection authorities. Before submitting an order please ask your competent inspection authority. Should you have any questions please do not hesitate to contact us.

Type	Article-No.
Safeline GL1	337350

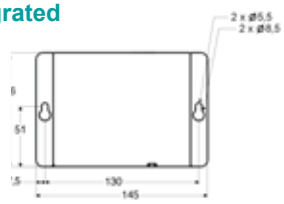
Mobile Telephone Module GL4 with Integrated Emergency Power Supply

- Like Mobile Telephone Module GL1
- Includes GSM-aerial and 3 m cable
- Voltage supply 20-30 VDC
- Dimensions 47 x 115 x 92 mm



Mobile Telephone Module GL5 with Integrated Emergency Power Supply

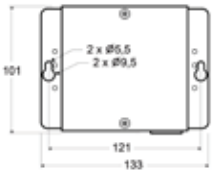
- Like Mobile Telephone Module GL1
- Includes GSM-aerial and 3 m cable
- Built in battery back up
- Voltage supply 230 V AC
- Dimensions 96 x 145 x 58,1mm



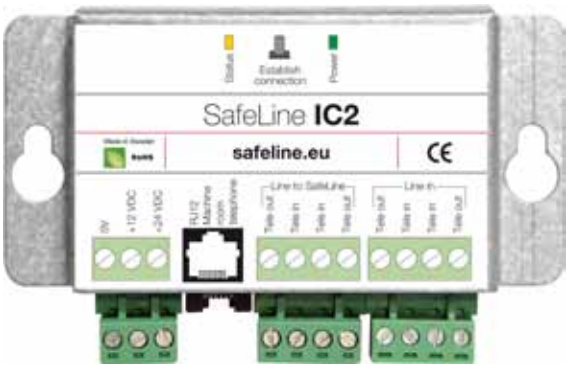
Type	Article-No.
GL4	337352
GL6	337355

Emergency power supply unit UP2

Power supply for SafeLine MX and GL1 with 12 V in case of power failure.
Can supply power to an emergency light for ut to one hour.
With short-circuit and overheating protection.

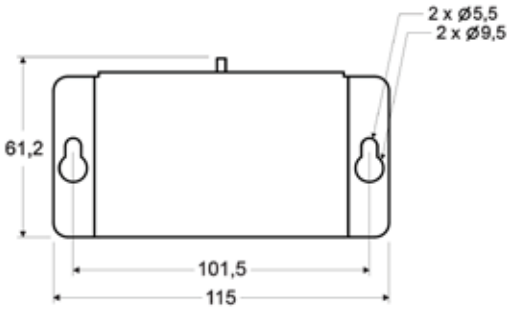


Type	Article-No.
UP 2	337381



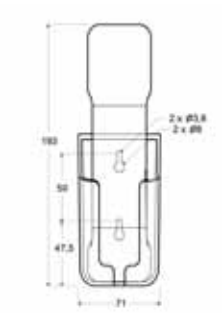
Internal communication module

Optional module for establishing voice communication between the lift car and machine room in conjunction with the hand-set unit art. no. 337360
Dimensions H x W x D: 115 x 100 x 35 mm



Comphone hand-set unit

- Hand set for a comfortable programming of emergency phones
- Establishing an internal voice communication (machine room – lift car) in conjunction with communication module art. no. 337340
- Dimensions H x W x D: 65 x 65 x 200 mm



Type	Article-No.
IC 2	337384
Comphone	337360

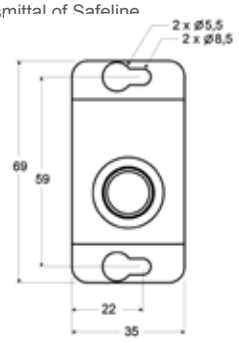
Alarm Button

The alarm button can be connected to the emergency telephone.

- Can be installed on top or at the bottom of the car
- Can be connected in parallel with the emergency stop button in the cabin to establish an emergency call possibility from the elevator shaft or the car roof. Easy the high quality of the language transmittal of Safeline permitts communication from outside the cabin.

Technical Data:

Dimensions H x W x D:	69 x 35 x 27 mm
Voltage supply:	max 30 VDC, 0,5Ah
Contact:	NO (normally open)

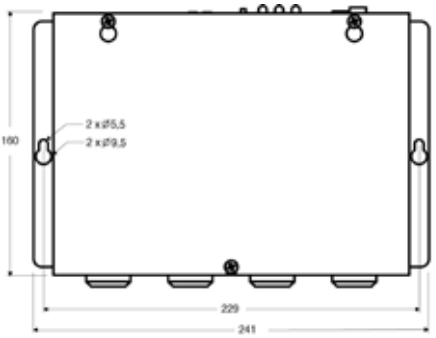


Type	Article-No.
Alarm Button (Button 01)	337361

Safeline SL 6

Emergency telephone SafeLine SL6 to meet EN81-28, EN81-70 and EN81-72 standards

- Up to 6 intercom units per SL6 main station
- Announcements can be transmitted to all units when the system is activated PSTN and GSM connections are possible at the same time
- Programming via USB interface
- Integrated function for evacuations and fire brigade intercom
- Simple installation thanks to two-wire cabling
- Steel casing
- LED´s displaying the functioning of the system



Type	Article-No.
SL6 central unit PSTN and GSM	337600

Comparison of SafeLine MX2 and SL6

	SafeLine MX2		SL6	
Power Supply	10-30 VDC external	●	230 VDC external	●
PSTN connection	Standard	●	Standard	●
GSM connection	optional	●	Standard	●
Pictograms	Standard	●	Standard	●
Emergency power	optional	●	Standard	●
Intercom	IC2, Comphone	●	Comphone	●
Additional inputs	Standard	●	Standard	●
Additional outputs	---	●	Standard	●
Emergency illumination without additional battery	---	●	LED-Rec	●
External Pictograms	---	●	SLB-SM-pic	●

● = Standard

● = Optional

● = Not available

EMERGENCY LIFT TELEPHONE

Safeline offers two series MX2 and SL3000 for differing applications.
From the adjoining table you can read the functions resp. the additional components required.
We recommend to apply the Safeline MX2 series especially for the modernization of existing elevators, whereas the series SL3000 is distinguished by its functions emergency power supply GSM-operating and additional intercom stations.

DC / DC Converter

Converter for Safeline emergency phones in elevators, where only one emergency power supply with 6 VDC is in use. e.g. Orona systems

- DC/DC-Converter in DIN rail
- input: 6V DC, output: 12V DC, max.160 mA

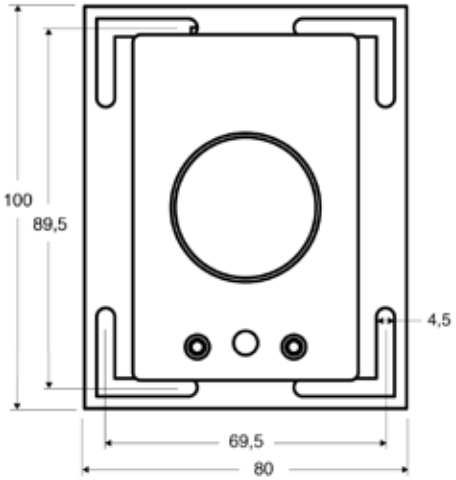
Type	Article-No.
DC / DC Converter	337357

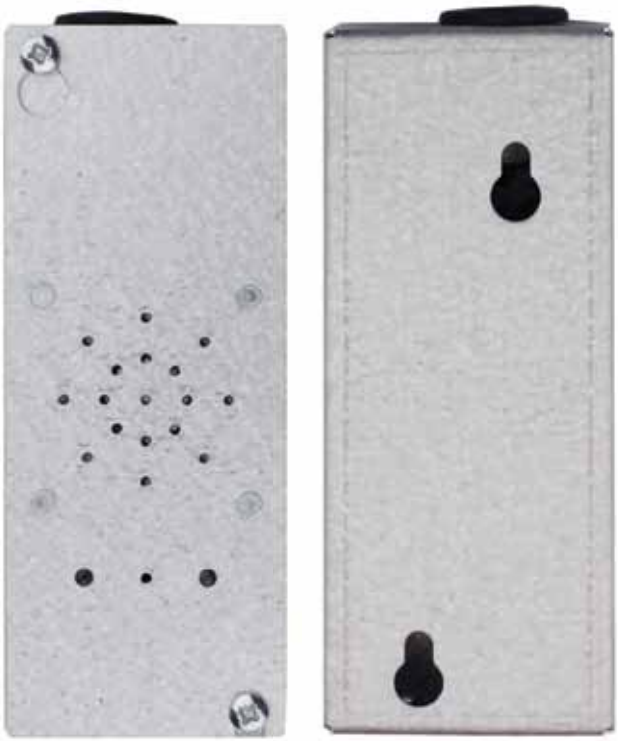
Car station

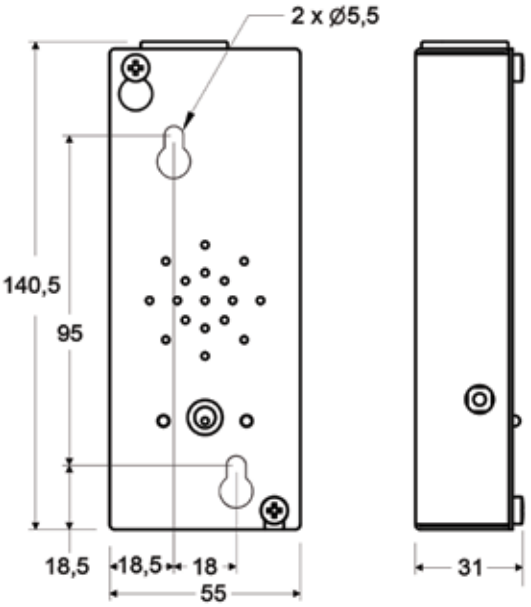
Conforms with all requirements of EN81-28 and EN81-70.

High quality of language transmittal enables simple and precise communication.
Plays recorded message identifying the elevator cabin.
No DTMF-based identification, therefore no computer required on the recipients side.
The car station unit without handset can be used by handicapped passengers or passengers in distress.

- Integrated loudspeaker and microphone
- Frontplate made of stainless steel
- Status indicators (yellow and green LEDs) and pictrograms

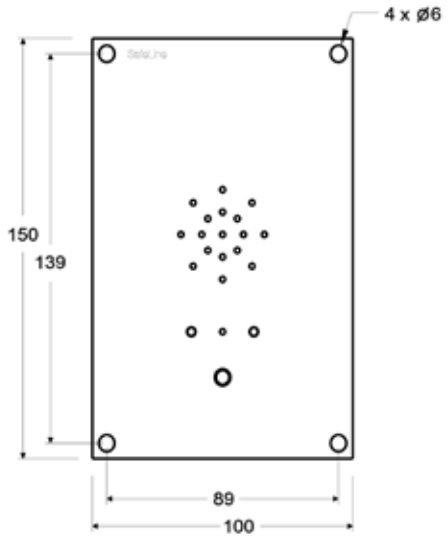




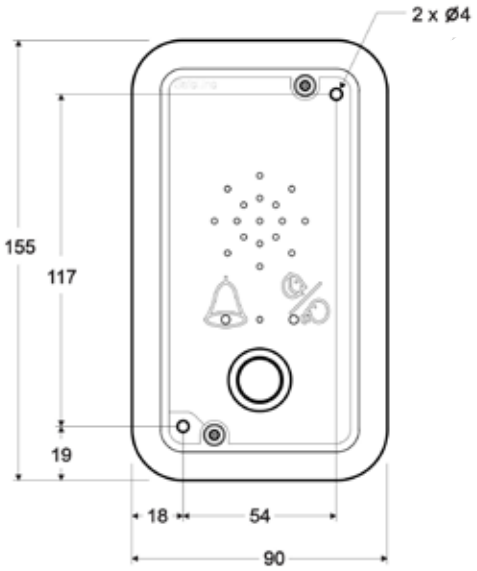


Type	Article-No.
SL 6 Car telephone for recessed mounting	337601
SL 6 Car station for shaft	337602

CABIN EQUIPMENT



Type	Article-No.
SL6 Car station for shaft or cabin roof incl. alarm button	337603



Type	Article-No.
SL 6 Surface mounting including pictogram + alarm button	337609

Additional order types:

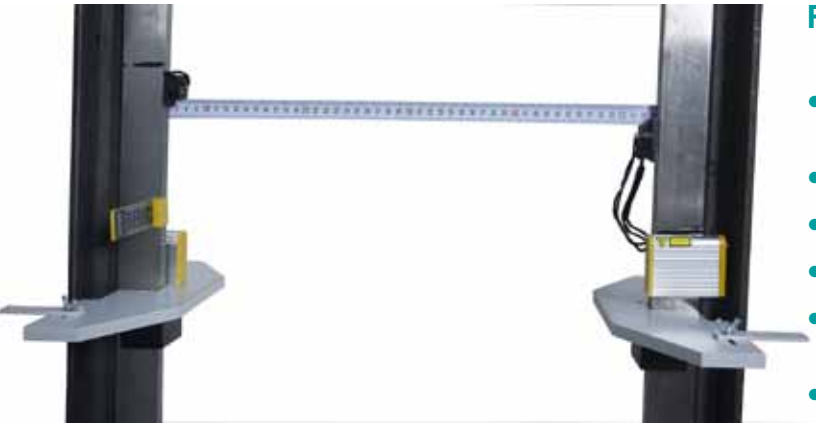
Type	Article-No.
SL 6 Car station for mounting in operating pane	337604
SL 6 Car station for mounting in operating pane + emergency	337605
SL 6 Telephone station countertop mounting	337606
SL 6 Telephone station countertop mounting/emergency LED	337607
SL 6 Telephone station countertop mounting/pictogram	337608

5.2 / 5.3

ANGLE MEASURING DEVICE FOR V-GROOVES IN TRACTION SHEAVES

- Measuring and checking V-grooves with and without undercut
- Measuring range: 25°-70°
- Including padded sleeve 90 mm x 90 mm

Type	Article-No.
Angle Measuring Device	500000



RAIL-MASTER DJ-A (KIT)

- Portable high-precision measuring laser facilitating erection and checking of elevator guide rails
- Serves for checking the coplanitarity of guide rails (parallelity and planitarity)
- Easy to operate
- Contributes to easy, quick and cost-saving erection of guide rails
- Supplementary device to determine the distance between guide rails by steel scale tape
- Packed in a plastic case for transport

Type	Article-No.
Railmaster	500010

CAR BLOCK

- A supporting block for car or counterweight
- To be fixed to the guide rail by a screw joint
- To be applied only in pairs

Technical Data:

Supporting capacity: 11 to
Tensioning range: 16 -19 mm
Weight: 10,5 kg

Type	Article-No.
Car block	337820

FALSE CAR, A RAIL-GUIDED INSTALLATION PLATFORM

- Facilitates the erection of guide rails in the elevator shaft
- Made of aluminium
- Safeguards itself automatically on the guide rails already erected
- Lifted by a rope-hoist
- Entirely detachable for easy transport from site to site
- Illustrating video for free download from www.henning-gmbh.de

Technical Data

Capacity: 680 kg
Weight: 105 kg
Guide rails: 16 - 30 mm

Type	Article-No.
False Car	337830

PROTECTIVE CANOPY

- protects false car
- Includes a railing
- Canopy planking not included

Type	Article-No.
Protective Canopy	337835

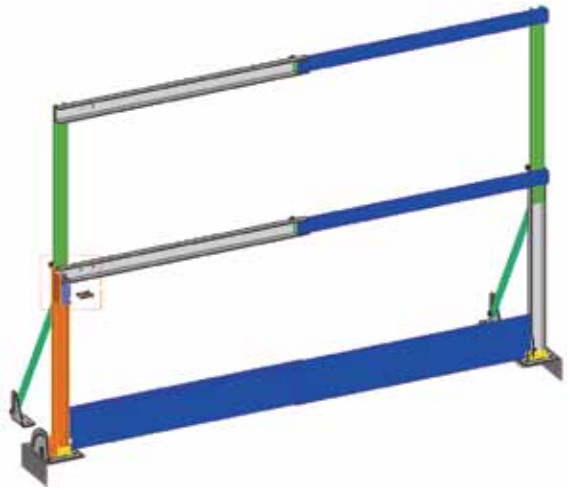
ADJUSTABLE PLATFORM

- Adjustable platform made from aluminium
- Adjusting range (depending on the installation site)
- 180 – 243 cm x 155 – 190 cm or
- 161 – 233 cm x 193 – 274 cm

Type	Article-No.
Adjustable Platform	337840

HANDRAIL FOR THE CABIN ROOF, EXTENDABLE AND HINGED

- extendable from 600 to 1100 mm
- width adjustable from 800 to1500 mm
- easy fixing on either side with two enclosed mounting brackets
- saftey contact adjustable depending on desired inclination (0°-90°)
- two contacts switches for the registration of extended position
- 2 x 3 m cable H07RN-F 2 x 1 mm²
- detachable mounting bracket
- skirting 10 cm
- delivery with monting screws



Type	Article-No.
handrail, extendable and hinged height: 600 - 1100 mm - length: 800 - 1500 mm	335100

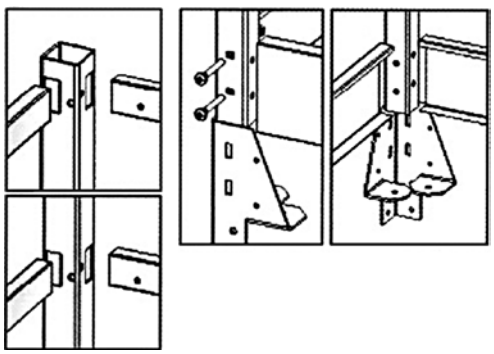
HANDRAIL FOR THE CABINE ROOF, ADJUSTABLE IN LENGTH AND HEIGHT

- ectendable from 600 to 1100 mm or from 360 to 700 mm in height
- width adjustable from 500 to 1000 mm or from 800 to 1600 mm
- two contact switches for the registration of the extended position
- easy fixing on either side with two enclosed mounting brackets
- 2 x 3 m cable H07RN-F 2 x 1 mm²
- skirting 10 cm
- delivery witch mounting screws

Type	Article-No.
handrail, adjustable height: 380 - 700 mm - length: 500 - 1000 mm	335110
handrail, adjustable height: 380 - 700 mm - length: 800 - 1600 mm	335120

HANDRAIL FOR THE CABINE ROOF, STATIC

- length / width adjustable up to 1950 mm
- height 1100 mm
- easy mounting on cabine roof
- skirting 10 cm
- including mounting screws
- a triangular handrail consists of one backpart Art.-No. 335200 and two side
- parts Art.-No. 335250
- the backpart Art.-No. 335200 can also be used as a stand alone handrail



Type	Article-No.
handrail, static height: 1100 mm - length: - 2000 mm, back part	335200
handrail, static height: 1100 mm - length: - 2000 mm, side part	335250

MADE IN GERMANY

Imprint

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